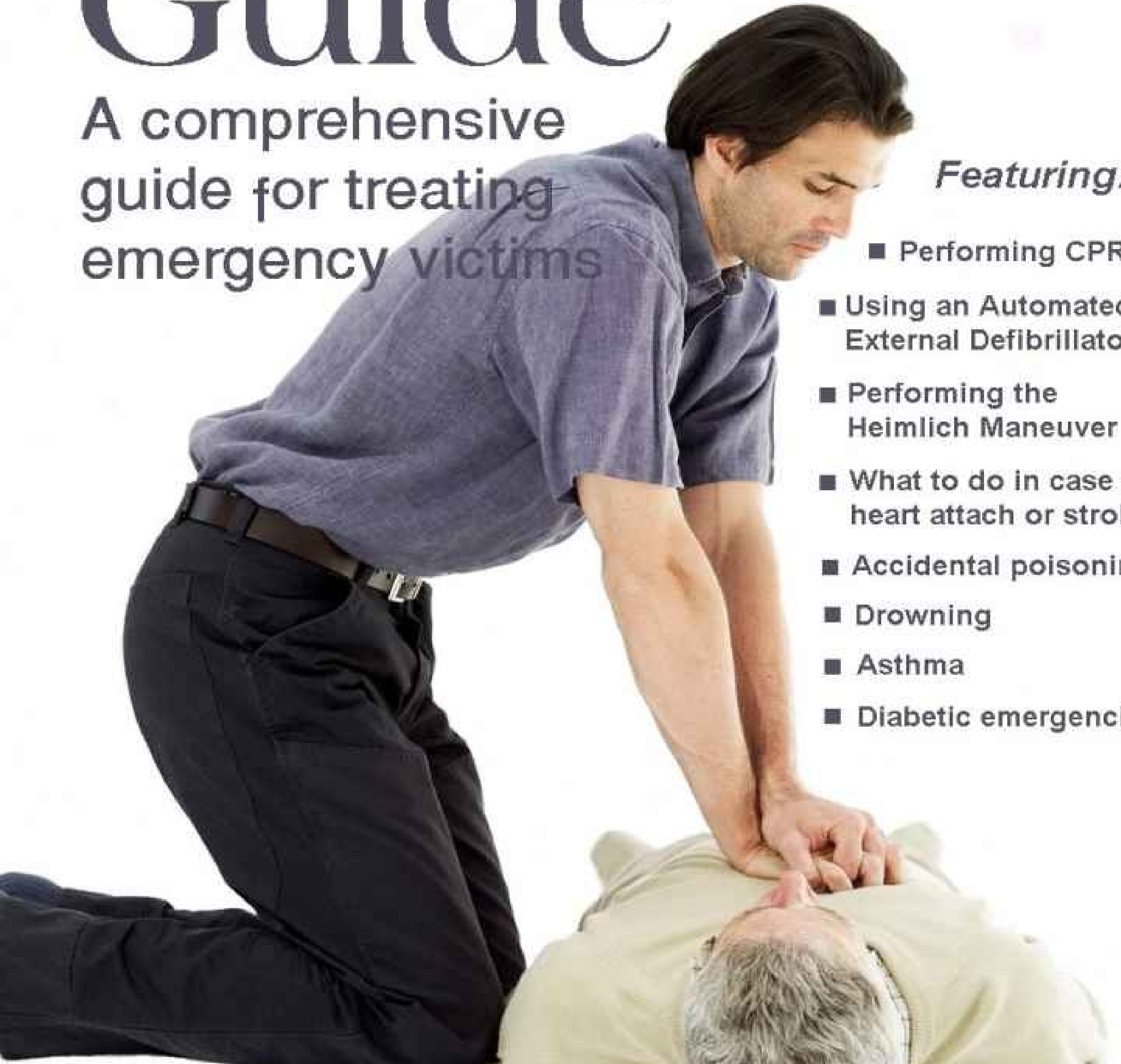
The *Illustrated* First Aid Guide

A comprehensive guide for treating emergency victims



Featuring:

- Performing CPR
- Using an Automated External Defibrillator
- Performing the Heimlich Maneuver
- What to do in case of heart attach or stroke
- Accidental poisoning
- Drowning
- Asthma
- Diabetic emergencies

Rampart
Guide

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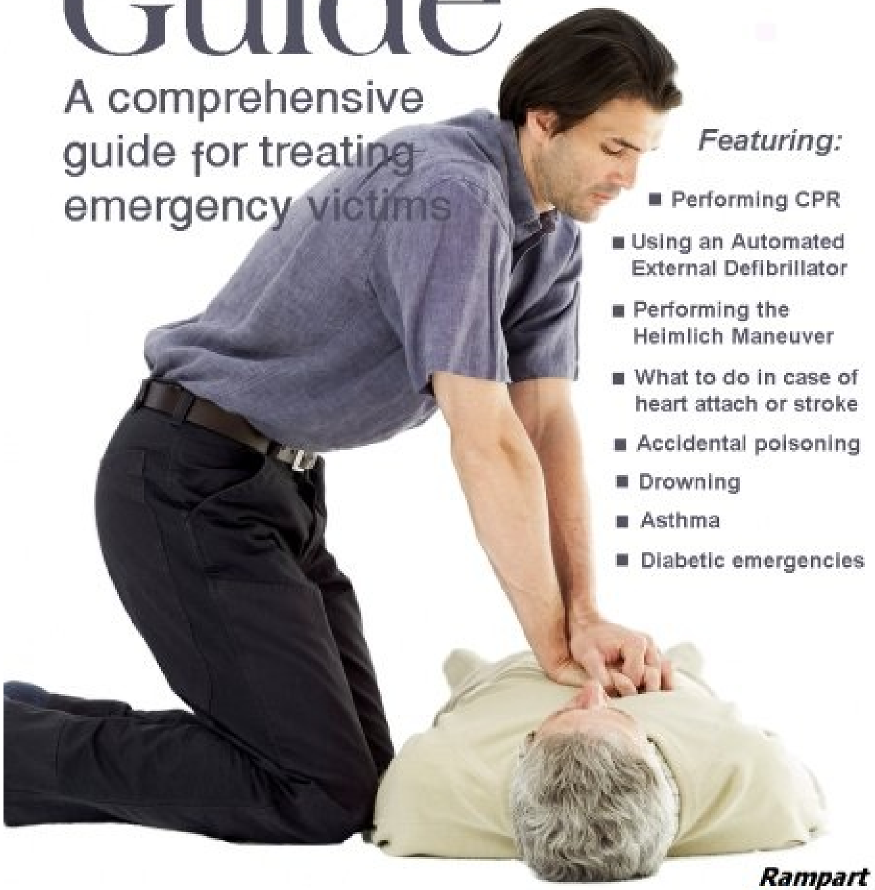

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Rampart
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Illustrated First Aid Guide

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Use the links in the Table of Contents to navigate to any of the topics within this guide. At the end of major sections is a link, “Contents”, that will return you to the Table of Contents. To select a link, use the cursor bar and select wheel. To return to your original location, simply press the Back Button.

Disclaimer: This information is not intended as a substitute for professional medical advice, emergency treatment or formal first aid training. Don’t use this information to diagnose or develop a treatment plan for a health problem or disease without consulting a qualified health care provider. If you’re in a life-threatening or emergency medical situation, seek medical assistance immediately. Medical emergencies don’t occur every day, but when they do, the information contained in this guide can help you deal with these situations.

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About First Aid

About First Aid

What Is First Aid?

First aid is the immediate care given to an injured or suddenly ill person. It provides temporary assistance until the victim can receive professional medical care. First aid can mean the difference between life and death or between temporary disability and permanent injury.

The initial minutes after an injury or medical crisis frequently are the most important. They key is knowing what to do, remaining calm and making a decision to act. To prepare for a medical emergency:

- Keep a list of emergency phone numbers by your phone, include numbers for police, fire, poison control, local hospital, ambulance service, and your family physician
- Keep and maintain a well-stocked first-aid kit at home, at work and in your vehicle, this will help you handle medical situations
- Keep a list of all your medications in either in your wallet or on your cellphone, include drug names, strength, dosage form and regimen, also list all allergies to medications
- Keep a list of emergency contacts such as family members in either your wallet or cellphone
- If you have a medical condition, wear a medical-alert bracelet or necklace
- Take a first-aid class

First Aid and the Law

Most states have Good Samaritan Laws that grant immunity against lawsuits to those providing first aid. Good Samaritan Laws apply if the rescuer is:

- Acting during an emergency
- Acting in good faith
- Acting without compensation
- Not guilty of gross negligence toward the victim

Some occupations include a *duty to act*, to provide first aid to victims. These occupations include law enforcement officers, park rangers, athletic trainers, lifeguards and teachers. Once you have begun first aid on a victim, do not leave the victim unless another competent and trained person takes responsibility for them. Keep any medical information the victim gives you in the strictest confidence.

Before giving first aid, ask for the victim's consent, which can be expressed verbally or with a nod of the head. If the victim is unconscious, their consent is considered *implied*. Based on implied consent, treat children whose parents or guardians cannot be found. Do not call your doctor, the hospital, friends, relatives or neighbors when a serious condition occurs. This only wastes valuable time. Do not transport a victim to a hospital in a private vehicle, this can present significant dangers to a victim.

Risks of Providing First Aid

The risk of getting a communicable disease from a victim is low, however, several are serious. Three serious blood borne diseases are: hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). Hepatitis is a viral infection that causes inflammation and possible damage to the liver.

A vaccine is available for hepatitis B, and medical and laboratory personnel, EMS workers and police are frequently vaccinated. Currently, there is no vaccine or effective treatment for HCV. Symptoms of HBV appear within two weeks to six months after exposure. Some people remain symptom free, but are still contagious. Symptoms include:

- Fatigue
- Nausea and loss of appetite
- Stomach pain
- Yellowing of the skin and eyes

Persons infected with HIV almost always develop Acquired Immunodeficiency Syndrome (AIDS), which interferes with the body's ability to fight off other diseases. There is no vaccine to prevent HIV infection.

Among air borne diseases, tuberculosis (TB) is a serious risk. Persons with a chronic cough, nursing home residents or homeless shelter residents are especially at risk. Symptoms of TB include:

- Fatigue
- Weight loss
- Chest pain
- Coughing up blood

To prevent blood borne or air borne diseases, wear eye covering, latex or vinyl gloves, and a surgical mask if available. If a mask is not available, wrap a handkerchief over your nose and mouth. When doing CPR, use a mouth-to-barrier device if one is available.

Calling Emergency Services

Most countries have emergency numbers to summon police, fire or an ambulance. Many countries have consolidated these numbers into a single emergency number. In North America, that number is 911, and in all countries in the European Union, the number is 112. In the U.S., you can dial 911 from your cell phone even if your phone has never been activated. In Europe, you can dial 112 from your GSM phone even if it doesn't have a SIM card, or if the keyboard is locked. Some European countries, such as Belgium, Spain, UK, Liechtenstein, and Austria, are reported to connect emergency calls only from phones having a valid account on their network, that is, customers and roamers only. In Latin America, GSM networks typically do not allow 112 calls without a SIM.

In many parts of the world, emergency services can identify the landline from which a 911 call has been made, even landlines having an unlisted number or blocked caller ID. They can then associate an address with that telephone number. In the U.S. the Federal Communications Commission has required that all wireless carriers be able to pinpoint the location of a cell phone dialing 911, however, that system is being implemented in phases, and may not yet be available in your area.

Whether on a landline or cell phone, when you call 911, be ready to provide the following information:

- Your name and the phone number from which you are calling. This allows dispatch to call you back if you get disconnected
- The victim's location, Give the address, names of intersecting streets or other landmarks
- Describe the nature of the emergency, e.g., someone fell off a ladder
- Describe the victim's condition, e.g., their head is bleeding, and identify any additional persons needing help
- **Do not** hang up the phone unless instructed to do so by the dispatcher

Emergency numbers:
North America
Central America and the Caribbean

South America
Asia
Europe
Oceania
Africa

Sizing Up a Scene

When you come upon the scene of an emergency, size it up:

- Look for hazards to you, the victim or bystanders
- Look for the cause or mechanism of the injury or illness
- Check for additional victims

Call 911 if any of the following symptoms are present:

- Fainting
- Chest of abdominal pain or pressure
- Sudden dizziness, weakness, or change in vision
- Difficulty breathing or shortness of breath
- Sudden severe pain anywhere in the body
- Suicidal or homicidal feelings
- Bleeding that does not stop after 10 to 15 minutes of pressure
- Problems with movement or sensation following an injury
- Hallucinations and clouding of thoughts
- Stiff neck in association with a fever or headache
- Bulging or abnormally depressed fontanel (soft spot) in infants
- Stupor or dazed behavior accompanying a high fever
- Unequal pupil size, loss of consciousness, blindness, staggering, or repeated vomiting after a head injury
- Spinal injuries
- Severe burns
- Poisoning
- Drug overdose
- Bloody vomiting or diarrhea
- Bleeding that pulsates or does not stop after 5 minutes of pressure
- Head injury that results in altered consciousness or vomiting
- Severe headache
- Severe of persistent vomiting
- A gaping wound with edges that do not come together
- Cuts to the face or hand

- Puncture wounds
- Foreign bodies, such as glass or metal in a wound
- Most animal and all human bites

First Aid Kit

A well-stocked first-aid kit can help you respond to common injuries and emergencies. Keep one first-aid kit in your home, and one in your car. Store kits in an easy-to-retrieve location that is out of the reach of young children.

You can purchase first-aid kits at drugstores, hardware stores or army/navy surplus stores, or, you can assemble your own. Contents of a first-aid kit should include:

- Adhesive tape
- Aluminum finger splints
- Antibiotic ointment
- Antiseptic solution or towelettes
- Bandages, including a roll of elastic wrap (Ace, Coban, others) and bandage strips (Band-Aid, Curad, others) in assorted sizes
- Instant cold packs
- Cotton balls and cotton-tipped swabs
- Disposable latex or synthetic gloves, at least two pair
- Gauze pads and roller gauze in assorted sizes
- Eye goggles
- First-aid manual
- Petroleum jelly or other lubricant
- Plastic bags for the disposal of contaminated materials
- Safety pins in assorted sizes
- Save-A-Tooth storage device containing salt solution and a travel case
- Scissors, tweezers and a needle
- Soap or instant hand sanitizer
- Sterile eyewash, such as a saline solution
- Thermometer
- Triangular bandage
- Turkey baster or other bulb suction device for flushing out wounds
- Activated charcoal (use only if instructed by your poison control center)
- Antidiarrhea medication
- Over-the-counter oral antihistamine (Benadryl, others)
- Aspirin and non-aspirin pain relievers (never give aspirin to children)

- Calamine lotion
- Over-the-counter hydrocortisone cream
- Personal medications
- If prescribed by your doctor, drugs to treat an allergic attack, such as an auto-injector of epinephrine (EpiPen)
- Syringe, medicine cup or spoon
- Cell phone and recharger that utilizes the accessory plug in your car dash
- Emergency phone numbers, including contact information for your family doctor and pediatrician, local emergency services, emergency road service providers and the regional poison control center
- Small, waterproof flashlight and extra batteries
- Candles and matches for cold climates
- Sunscreen
- Mylar emergency blanket

Travel First Aid Kit

When traveling, you walk more than usual, you are exposed to sun and wind, and cuts and scrapes tend to occur in unfamiliar surroundings. While you can purchase first aid supplies in hotel gift shops and pharmacies, they will cost far more than if you had brought a travel first aid kit with you.

Contents of a travel first aid kit should include:

- Adhesive bandages of various sizes
- Triple-antibiotic ointment
- Antiseptic wipes
- Calamine lotion
- Sunscreen SPF 15 or higher
- Insect repellent (35 - 55% DEET)
- Antidiarrhea medications
- Hydrocortisone cream
- Lip salve
- 2 inch and 4 inch gauze pads
- Antinausea/motion sickness medication
- Bandages
- Antifungal cream (tolnaftate 1% or clotrimazone 1%)
- Thermometer
- Antiseptic hand wipes or soap
- Moleskin for blisters

- Dimenhydrinate (Dramamine) or meclizine for nausea
- Aspirin, Ibuprofen or acetaminophen for pain relief. Never give aspirin to children
- Diphenhydramine or fexofenadine for allergies
- Moist towellettes for cleaning hands when restrooms aren’t available

Disaster Preparedness

Natural disasters such as earthquakes, floods, hurricanes and tornados claim many lives each year. Becoming informed about the steps you can take to protect yourself and others can mean the difference between life and death.

Earthquakes

An earthquake can cause buildings and bridges to collapse, disrupt gas, electric and phone service, and trigger landslides, avalanches, flash floods, fires and tsunamis.

What to Do During an Earthquake:

1. If you are indoors, take cover under a desk, table, bench or against an inside wall.
2. If the quake is severe and the building you are in could collapse, crouch next to a large, sturdy object such as a refrigerator or file cabinet. If the ciling collapses, a triangle of space next to the object will provide a safe place.
3. Stay away from glass, windows, outside doors and walls.
4. Never try to leave a building during an earthquake, objects can fall on you.
5. If you are in bed, stay there and cover your head with a pillow. If the earthquake is severe, get on the floor next to but not under the bed. If the ceiling collapses, this will provide a safe place.
6. If you are in a high-rise building, the fire alarms and sprinklers will most likely go off. Use the stairs, not the elevators to descend.
7. If you are outside, avoid buildings, trees, streetlights and power lines until the shaking stops.
8. If you are in a vehicle, stay inside it with your seatbelt fastened. If under an overpass or within a parking structure, crouch next to your vehicle. If the ceiling collapses, this will provide a safe place for you.
9. If you are trapped in debris, do not light a match, cover your nose and mouth with a handkerchief or clothing and avoid kicking up dust, tap on a pipe or wall to alert rescuers to your presence.

Floods

Flash floods can occur anywhere, especially in channels and lowlying areas. They can be fast and catch people unawares.

What to Do During a Flood:

1. Be aware of streams, drainage channels, canyons and other areas known to flood suddenly in your area.
2. Listen to radio or television for flood watches and warnings.
3. If evacuating your home, move essential items to an upper floor, turn off utilities at the main switches or valves, and disconnect electrical appliances.
4. Do not touch electrical equipment if you are wet or standing in water.
5. Fill containers with water; you can sterilize water by mixing 10 parts water with one part household bleach.
6. Do not walk through moving water, as little as 6 inches can knock you off your feet. Use a stick or pole to probe the water depth before proceeding.
7. **Never** drive through a flooded area; a foot of water can float a vehicle, and two feet can carry away even an SUV or truck.
8. If water rises around your car, abandon the car and move to higher ground.

Heat Waves

High heat and humidity prevent the body from cooling itself through evaporation. People living in urban areas are at greater risk from a heat waver because asphalt and concrete store heat longer and only gradually release it at night.

What to Do During a Heat Wave:

1. Stay indoors in air conditioning if possible. Without air conditioning, stay on the lowest floor out of the sun, use a fan to circulate the air and use wet cloths to cool yourself down.
2. Try to spend the hottest part of the day in an air-conditioned place, such as a library, movie theater or shopping mall.
3. Check on family, friends, neighbors and especially the elderly if they don’t have air conditioning. Refer to Heat and Cold for first aid procedures for heat-related emergencies such as heatstroke, heat exhaustion and heat cramps.
4. Drink plenty or water, even if you don’t feel thirsty.
5. Avoid alcoholic beverages, they cause dehydration.
6. **Never** leave children or pets alone in a vehicle.
7. Wear loose-fitting, light colored clothing. Light colored clothes reflect the heat and sunlight.
8. Protect your face and heat by wearing a broad-brimmed hat, and avoid strenuous work during the warmest part of the day.

Hurricanes

Hurricanes are defined as having winds in excess of 74 miles per hour. As they near land, they bring along with them torrential rains, high winds, flooding and storm surges. All U.S. Atlantic and Gulf of Mexico coastal regions are subject to hurricanes, and August and September are the peak months of activity.

What to Do During a Hurricane:

1. Listen to radio and television for hurricane watches and warnings. Hurricane watches are generally issued between 24 and 36 hours before expected landfall.
2. Make sure your car(s) have a full tank of gas and review evacuation routes.
3. Secure outdoor items such as patio furniture and children’s toys.
4. Board up windows or tape them to reduce the risk of broken glass.
5. If evacuating, turn off utilities at the main valves or switches, and make sure you have several days’ worth of water and food for each household member.
6. If remaining, take refuge in an interior room, closet or hallway, and stay indoors away from windows and glass doors.
7. Close all interior doors and secure or brace exterior doors.
8. In a multi-story building, go an interior room on either the first or second floor and stay away from windows.
9. If the hurricane is severe, lie on the flor under a table or other sturdy object.

Tornados

Tornados generally occur east of the Rocky Mountains and the months of March through August are generally considered tornado season.

What to Do During a Tornado:

1. If you are at home, go to the lowest level of the building, such as the basement. If there is no basement, go to an interior room, closet or hallway.
2. Get under a piece of sturdy furniture such as a table or desk, and hold on to it.
3. If you are outdoors, leave your vehicle and either lie in a ditch or lowlying area, or else crouch near a strong building.
4. If you are at work or school, avoid taking shelter in places with wide-span roofs, such as auditoriums, cafeterias, large hallways, or shopping malls.

Tsunamis

Tsunamis are caused by undersea disturbances, such as an earthquake, that cause a series of waves to propagate outward in all directions. Those most in danger are people living less than 50 feet above sea level and within one miles of the coastline. While most tsunamis are less than 18 feet, tsunamis in excess of 100 feet have been recorded.

What to Do During a Tsunami:

1. Listen to radio or television for tsunami warnings, and if advised to evacuate, do so immediately.
2. Do not go to the shoreline to watch. The water may initially recede from the shore before roaring back, and more than one giant wave is possible.

Volcanic Eruptions

A volcano is an opening in the earth's crust down to the molten rock underneath. During an eruption, gases, rock and ash shoot up and spill over the sides of the volcano.

What to Do During a Volcanic Eruption:

1. Listen to radio and television for eruption watches and warnings, and if ordered to evacuate, do so immediately.
2. Make sure your car(s) is fueled, study evacuation route and avoid areas downwind from the volcano.
3. If caught indoors, close all windows, doors and chimney or stove dampers.
4. If caught outdoors, avoid lowlying areas where poisonous gasses can collect or where mudflows can occur.
5. Put on long-sleeved shirts and pants, use goggles, and cover your nose and mouth with a damp cloth to aid breathing.

Wildfires

Forest, brush, and grass fires usually occur during hot, dry spells. The majority are caused by human carelessness, but lighting frequently causes wildfires.

What to Do During a Wildfire:

1. Listen to radio and television for wildfire information, and if ordered to evacuate, do so immediately.
2. Make sure your car(s) is fueled, and study evacuation routes.
3. While evacuating, watch for changes in the speed and direction of the fire.

Winter Storms

Heavy snowfall and extreme cold can paralyze an entire area.

What to Do During a Winter Storm:

1. Listen to radio, television and NOAA Weather Radio for weather reports and emergency information.
2. Conserve fuel by closing off unused rooms and by lowering your thermostat to 65 dgrees during the day and 55 degrees at night.
3. If using kerosene heaters, maintain ventilation, refuel the heater outside, and keep it at least three feet from flammable objects.

4. If outside, wear several layers of clothing, a hat, globes and cover your mouth and nose with a scarf to protect your lungs.
5. Avoid overexertion such as shoveling snow or pushing a car, these can bring on a heart attack.
6. Be aware of the signs of frostbite and hypothermia.
7. If outside, pull off the road, and attach a brightly-colored piece of clothing to the radio antenna.
8. Run the engine and heater approximately ten minutes each hour to keep warm. Make sure snow is not blacking the exhaust pipe, and open a window a crack for ventilation.
9. Move your arms and legs to maintain body heat.
10. Use the floor mats, seat covers, road maps or newspapers for insultion, and huddle with other passengers.
11. Take turns sleeping, one person should be awake at all times to look for rescue crews.
12. Drink fluids to avoid dehydration, and watch for signs of frostbite and hypothermia. 13. At night, turn on an inside light so work crews or rescuers can see you.
14. If rescue has not arrived, once the storm passes you may need to leave the car and set out on foot.

Winter Travel Kit

Keep the following supplies in your vehicle during the winter:

- Cell phone
- Shovel
- Windshield scraper
- Flashlight
- Battery-powered radio
- Extra batteries
- Water and snack food
- Gloves, mittens and a hat
- Blanket
- Jumper cables
- Tow chain or rope
- Tire chains
- Bag of road salt or sand
- Fluorescent distress flag
- Emergency flares

Hazardous Materials Incidents

Hazardous materials incidents have become more common in recent years as more chemicals are produced, stored or transported.

What to Do During a Hazardous Materials Incident:

1. Try to get at least half a mile away from the danger area, try to get above it; gases and mists are usually heavier than air and settle close to the ground.
2. Determine which way the wind is blowing and get upwind of the area.
3. If in a vehicle, close windows and vents, and shut off the air conditioner or heater.
4. If asked to evacuate, do so immediately.
5. If at home, close all exterior doors and windows, vents and fireplace dampers.
6. Turn off the air conditioner, furnace and ventilation system.
7. Take refuge in an above-ground room with the fewest openings to the outside; tape around windows and doors and cover windows and vents with plastic sheeting.
8. Listen to emergency broadcasts, and fully ventilate your house when you are advised to leave.

Nuclear Power Plant Accidents

Nuclear power plants operate in most states in the U.S. and produce one fifth of the nation’s power. Three million Americans live within ten miles of an operating nuclear power plant, and although these plants are monitored, unintentional releases of radiation are possible. Local and state governments, federal agencies, and the electric utilities have emergency response plans in the event of a nuclear power plant accident.

Bites

Contents

Bites

Animal Bites

Domestic pets cause most animal bites. Dogs are more likely to bite than cats, however, cat bites are more likely to cause infection. Bites from wild animals and non-immunized domestic animals carry the risk of rabies.

Rabies is almost invariably fatal in humans after neurological symptoms have developed; there is only *one* known case of survival. Therefore, it is imperative that you seek medical attention if bitten by a wild animal or an unknown domestic animal.

Rabies is most common in raccoons, skunks, bats and foxes; dogs, cats, rabbits, squirrels and other rodents rarely carry rabies. If a bite victim has not had a tetanus shot within the last five, he or she should get a booster shot within 48 hours of being bitten.

Treatment

1. If the bite does not break the skin, and there is no danger of rabies, wash the skin thoroughly with soap and water, apply an antibiotic cream, and cover the area with a clean bandage.
2. If the bite *does* break the skin, apply pressure with a clean, dry cloth to stop the bleeding, and seek medical attention.
3. If you do not know whether the animal has been immunized for rabies, see your doctor immediately.
4. If there is increased pain in the area of the bite, redness, swelling, or oozing, these are signs of infection; seek medical attention immediately.

Human Bites

A human bite can be as dangerous or more dangerous than an animal bite because of the types of bacteria and viruses contained in the human mouth. A cut to the knuckles sustained during a fight is also considered a human bite.

Treatment:

1. Seek medical attention for any human bite. If the victim hasn’t had a tetanus shot within five years, get a booster shot within 48 hours of the injury.
2. Stop any bleeding by applying direct pressure with a bandage or clean cloth.

3. Thoroughly wash the wound with soap and water.
4. Apply an antibiotic cream to prevent infection.

Insect Bites and Stings

An insect bite injects venom or other substances into your skin, and can trigger an allergic reaction. Most reactions to insect bites are mild, and consist of itching, stinging and mild swelling that disappears quickly. A delayed reaction can include fever, hives, painful joints and swollen glands.

Bites from mosquitoes, ticks, biting flies and some spiders can cause a mild reaction. Bites from bees, wasps, hornets, yellow jackets and fire ants can cause more serious reactions.

Only a small percentage of people develop a severe reaction (anaphylaxis) to insect venom, and they require prompt medical attention. Symptoms of a severe reaction include:

- Difficulty breathing
- Swelling of the lips or throat
- Faintness
- Dizziness
- Confusion
- Rapid heartbeat
- Hives
- Nausea, cramps and vomiting
- Abdominal pain
- Shock
- A swelling larger than 2 inches in diameter at the site

Treatment of Mild Reactions:

1. Move the victim to a safe area to avoid more stings.
2. Scrape or brush the stinger off with a straight-edged object, such as a credit card or the back of a knife. Never try to pull the stinger out, doing so can release more venom.
3. Wash the affected area with soap and water.
4. Apply a cold pack or cloth filled with ice to reduce pain and swelling.
5. Apply hydrocortisone cream (0.5 percent or 1 percent), calamine lotion or a baking soda paste to the bite several times a day until symptoms subside. Make the baking soda paste with 3 teaspoons baking soda and 1 teaspoon of water.
6. Administer an antihistamine containing diphenhydramine (Benadryl, Tylenol

Severe Allergy) or chlorpheniramine maleate (Chlor-Trimeton, Actifed).

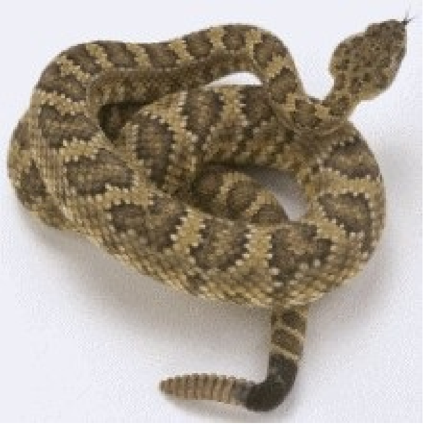
Treatment of Severe Reactions:

1. Check for special medications the victim might be carrying such as an auto-injector of epinephrine (EpiPen).
2. Administer the epinephrine by pressing the auto-injector against the person's thigh and holding it in place for several seconds, then massage the injection site to enhance absorption.
3. If the victim can swallow, administer an antihistamine pill after administering the epinephrine.
4. Have the victim lie still on their back with their feet higher than their head.
5. Loosen any tight clothing and cover the victim with a blanket.
6. Do not give anything to drink.
7. If the victim is vomiting, turn them on their side to prevent choking.
8. If there are no signs of breathing, begin CPR.

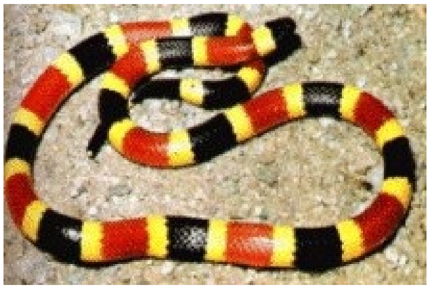
Snakebite

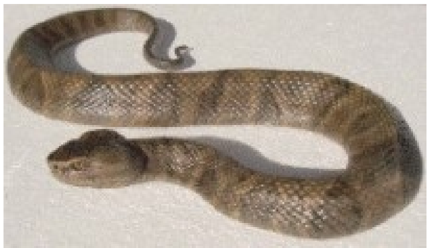
Most North American snakes aren't poisonous, however the rattlesnake, coral snake, water moccasin and copperhead are. Except the coral snake, these poisonous snakes have slit-like eyes and triangular heads with a depression, or pit, midway between the eyes and nostrils.

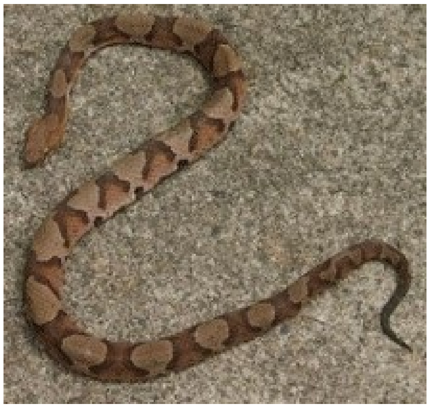
Rattlesnakes make a rattling sound by shaking rings at the end of their tail, water moccasins have a white, cottony lining in their mouth, and coral snakes have red, yellow and black bands along the length of their body.



Rattle Snake


Coral Snake


Water Moccasin


Copperhead

Most snakes naturally try to avoid people, and bite only when threatened or surprised. Never pick up or play with a snake.

Treatment:

1. Seek medical attention immediately if the bitten area changes color, begins to swell or is painful.
2. Do not try to capture the snake.
3. Remain calm and immobilize the bitten arm or leg.
4. Remain as motionless as possible.
5. Remove any jewelry or tight-fitting clothing, because swelling progresses rapidly.
6. Do not use a tourniquet or apply ice to the bite.
7. Never cut the wound or attempt to remove the venom.

Spider Bites

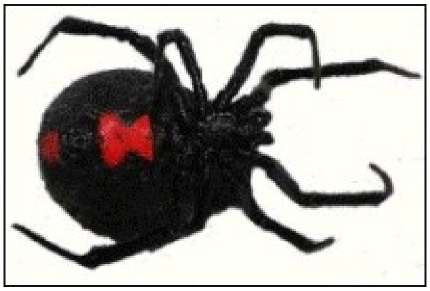
Very few spiders are dangerous to humans. In the United States, two that are dangerous are the black window and brown recluse. Both live in warm climates, and in dark, dry places where flies are plentiful, such as closets, woodpiles and under sinks. Immediate medical attention is required for anyone bitten by either of these two spiders.

The black widow is identifiable by the red hourglass marking on its belly, and it is the female who delivers the more serious bite, however it is rarely fatal. The initial bite feels like a pinprick, and soon a slight swelling and faint red marks appear. Within several hours, the following symptoms appear:

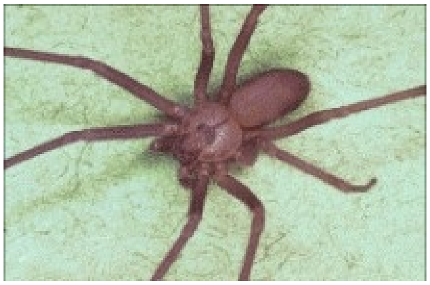
- Intense pain and stiffness
- Chills
- Fever
- Nausea
- Severe abdominal pain

The brown recluse is identifiable by the violin-shaped marking on its top. Its bite produces mild stinging, followed by local redness and intense pain within eight hours. A fluid-filled blister forms and then sloughs off leaving a deep, ulcer. Other symptoms of a brown recluse spider bite include:

- Mild fever
- Rash
- Nausea and listlessness



Black Widow



Brown Recluse

Treatment:

1. For spider bites other than the black widow or brown recluse, clean the wound well with soap and water.
2. Apply a cool compress over the bite location.
3. Administer aspirin, ibuprofen or acetaminophen to adults, never give aspirin to children.
4. Seek medical attention if the victim is under 6 years of age or is experiencing severe pain.
5. If bitten by a black widow or brown recluse, tie a snug bandage above the bite on an arm or leg to help slow the spread of the venom. Be sure not to cut off circulation to the arm or leg.
6. Apply ice or a cold cloth to the bite.

Tick Bites

Some ticks bites transmit the bacteria that cause illnesses such as Lyme disease or Rocky Mountain spotted fever. Your risk of contracting one of these diseases depends on what part of the United States you live in, how much time you spend in wooded areas, and how well you protect yourself.

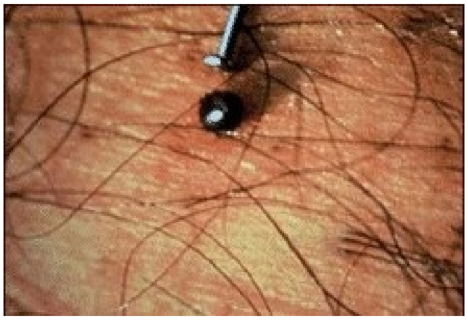
Take the following preventative measures:

1. In wooded areas, wear a hat, long-sleeved, light-colored clothing, and tuck pants into socks
2. If hiking, stay on wide, clear trails and avoid piles of leaves and tall grasses
3. Use insect repellents, such as DEET, on clothing and skin. Do not use stronger than 10 percent for children
4. Check regularly for ticks, and shower or bathe after being outdoors
5. Use tick repellents on pets, check their fur, ears and paws for ticks, which can drop off and lurk in carpeting or upholstery

Following a tick bite, symptoms of a more serious disease include:

- Rash, especially a bull’s eye
- Fever
- Stiff neck
- Muscle aches
- Joint pain and inflammation
- Swollen lymph nodes
- Flu-like symptoms

- Severe headache
- Difficulty breathing
- Paralysis
- Chest pain or heart palpitations



Engorged Deer Tick

Treatment:

1. Remove the tick using tweezers to grasp the tick near its head or mouth and gently pulling. Do not crush the tick.
2. If you aren’t able to completely remove the tick, seek medical attention.
3. Seal the tick in a jar or plastic bag. If symptoms of illness occur after a tick bite, a doctor will want to examine the tick.
4. After handling the tick, wash your hands thoroughly with soap and water.
5. Wash the area around the tick bite with soap and water.

Bleeding

Contents

Bleeding

Cuts and Scrapes

Minor cuts and scrapes usually don’t require a trip to the emergency room. Yet proper care is essential to avoid infection or other complications. These guidelines can help you care for simple wounds:

Treatment:

1. If blood is spurting from a wound or continues to flow after continuous pressure, seek medical attention immediately.
2. Wounds that are more than 1/4 inch (6 millimeters) deep, have a gaping or jagged edge, or have fat or muscle protruding usually requires stitches. Seek medical attention immediately because proper closure within a few hours reduces the risk of infection.
3. Stop the bleeding. Minor cuts and scrapes usually stop bleeding on their own, however, if they don’t, apply direct pressure with a clean cloth or bandage. Hold the pressure continuously for 20 to 30 minutes. Do not keep checking to see if the bleeding has stopped, this will dislodge the fresh blood clot that’s forming and cause the bleeding to resume.
4. Once the bleeding has stopped, clean the wound by rinsing it with clear water. Do not use soap, which can irritate the wound.
5. After rinsing, if dirt or debris remain in the wound, use tweezers cleaned with alcohol to remove the particles. If debris remains embedded in the wound, seek medical attention.
6. Clean the area *around* the wound thoroughly with soap and water on a washcloth. This reduces the risk of infection and tetanus. You do not need to use hydrogen peroxide, iodine or an iodine-containing cleanser.
7. Apply a thin layer of antibiotic cream or ointment such as Neosporin or Polysporin. They help keep the wound moist and discourage infection so the wound closes more efficiently. **Note:** Some people are allergic to certain ingredients in ointments; discontinue use if a rash develops.
8. Cover the wound with a bandage or sterile gauze, this helps to keep the wound clean and keep harmful bacteria out. After the wound starts to heal, expose it to the air to speed wound healing.
9. Change the dressing daily or whenever it becomes wet or dirty.
10. Seek medical attention if the wound isn’t healing or if it becomes: more painful, red, warm, swells or drains.

11. If the victim hasn't had a tetanus shot within the last five years, have them get one within 48 hours of the injury, especially if the wound is deep or dirty.

Hemorrhage

Before helping someone with severe bleeding, if there is time, wash your hands to avoid infection. Never try to reposition a victim's displaced organs, instead cover the wound with a dressing while waiting for emergency medical personnel to arrive.

Treatment:

1. Lay the injured person down with their head lower than their trunk, and elevate their legs. This position increases blood flow to the brain
2. If possible, elevate the site of the bleeding.
3. With clean hands or sterile gloves, remove any obvious dirt or debris from the wound. Do not remove any large or more deeply embedded objects.
4. Using a sterile bandage, clean cloth, piece of clothing or even your hand, apply direct pressure to the wound for at least 20 minutes. Do not look to see if the bleeding has stopped.
5. You can maintain direct pressure by binding the wound tightly with a bandage or piece of clean clothing.
6. If blood seeps through the bandage or cloth, do not remove it, instead, add more absorbent material on top of it.
7. Apply direct pressure to the artery supplying blood to the wound. In the arm, pressure points are located on the inside just above the elbow and just below the armpit. In the leg, pressure points are just behind the knee and in the groin. Press the artery against the bone keeping your fingers flat
8. Once the bleeding has stopped, leave the bandages in place, immobilize the injured body part, and seek medical assistance.

Internal bleeding requires immediate medical assistance. Symptoms of internal bleeding include:

- Bleeding from body cavities such as the ears, nose, rectum or vagina
- Vomiting or coughing up blood
- Bruising on the neck, chest, abdomen or side between the ribs and hip
- Wounds that have penetrated the skull, chest or abdomen
- Abdominal tenderness, rigidity or spasm of the abdominal muscles
- Fractures
- Shock, indicated by weakness, thirst or skin that's cool to the touch

Nosebleeds

Nosebleeds are common, especially in young children. In children and adults, nosebleeds usually originate from the septum, the divider separating your nasal chambers. In middle-aged and older adults, nosebleeds can originate deeper in the nose, and may be caused by hardened arteries or high blood pressure. These type of nosebleeds are difficult to stop and require a specialist's help.

People experiencing frequent nosebleeds should make an appointment with their doctor, who can cauterize the bleeding blood vessel with an electric current, silver nitrate or a laser. The doctor can also pack the nose with special gauze or an inflatable latex balloon to put pressure on the bleeding blood vessel.

People experiencing frequent nosebleeds who are taking blood thinners, such as aspirin or warfarin (Coumadin) should consult their doctor on the dosage. People using supplemental oxygen administered through a nasal tube (cannula) may be at increased risk of nosebleeds, and should apply a water-based lubricant to their nostrils and increase the humidity in their home.

Treatment:

1. Have the person sit upright and lean forward. Sitting upright reduces the blood pressure in the veins of the nose, which discourages further bleeding. Sitting forward helps avoid swallowing blood, which can irritate the stomach.
2. Using your thumb and index finger, pinch the victim's nose closed for 5 to 10 minutes and have them breathe through their mouth. Pinching the nose creates direct pressure on the bleeding point on the nasal septum.
3. For several hours after the bleeding has stopped, do not allow the victim to bend down, and have them keep their head higher than the level of their heart.
4. To prevent the bleeding from starting again after it has stopped, do not allow the victim to pick or blow their nose
5. If re-bleeding occurs, have the victim blow their nose forcefully to clear out any blood clots, then spray both sides of the nose with a decongestant nasal spray containing oxymetazoline (Afrin, Neo-Synephrine, others).
6. Pinch the nose again, and if bleeding continues, seek medical attention.
7. Seek medical attention if a nosebleed lasts longer than 20 minutes.
8. If the nosebleed follows an accident, fall or injury to the head, including a punch to the face that may have broken the nose, seek medical attention immediately.

Puncture Wounds

Puncture wounds, such as stepping on a nail or being stuck with a tack, don’t bleed much, and the wound often closes up quickly. However, these wounds can be especially dangerous due to the risk of infection. The object that caused the wound may carry the spores of tetanus or other bacteria, especially if the object was in contact with the soil.

Wounds on the foot, and puncture wounds from human or animal bites, including domestic dogs and cats, are especially prone to infection. Seek medical attention for these types of wounds, and anyone who hasn’t had a tetanus shot within five years should get a booster within 48 hours of the injury.

Seek medical attention immediately for a bite from a stray dog or a wild animal, which may cause rabies. Your doctor can administer a rabies vaccination. All such bites should be reported to your county’s public health service, and if the animal can be found, it should be confined for 10 days of observation by a veterinarian.

Treatment:

1. Stop any bleeding by applying direct pressure with a clean cloth or bandage. Seek medical attention if the bleeding persists or if the blood spurts.
2. Clean the wound well to reduce the risk of tetanus. Wash the area around the wound with soap and water, and use a tweezers cleaned with alcohol to remove any particles.
3. Apply a thin layer of an antibiotic cream or ointment such as Neosporin or Polysporin. This will keep the wound moist. If a rash appears, discontinue use of the ointment.
4. Cover the wound with a bandage or sterile gauze, and change the dressing whenever it becomes wet or dirty, or at least once a day.
5. Seek medical attention if the wound doesn’t heal or if signs of infection appear, such as redness, drainage, warmth or swelling.

Bones

Contents

Bones

Dislocation

A dislocation occurs when the ends of bones are forced from their normal positions usually by a blow or fall. Dislocations are common in sports such as football, hockey, skiing and volleyball. They can occur in major joints, such as the shoulder, hip, knee, elbow or ankle, or in smaller joints, such as the fingers or toes.

A dislocation temporarily deforms and immobilizes the joint, and may result in sudden and severe pain. Dislocations require prompt medical attention to return the joint to its proper position.

Treatment:

1. Don’t try to move the affected joint back into position. This can damage the joint and its surrounding muscles, ligaments, nerves or blood vessels.
2. Splint the joint in its fixed position, and put ice on it to reduce swelling. The icing reduces internal bleeding and the buildup of fluids in and around the injured joint.

Fractures (Broken Bones)

A fracture is a break in a bone, and all fractures require medical attention. Symptoms of fracture include:

- Pain from movement or even gentle pressure
- Limb or joint appears deformed
- The bone has pierced the skin
- For extremities, such as the arm or leg, the area beyond the injury becomes numb or bluish
- The extremity is turned at an abnormal angle

Treatment:

1. Immobilize the injured area. Never try to realign the bone yourself.
2. Stop any bleeding by applying pressure to the wound with a bandage, clean cloth or piece of clothing.
3. Apply ice packs to limit swelling and help relieve pain until emergency personnel arrive. Never apply ice directly to the skin, wrap it in a towel or piece of cloth.

4. If the victim feels faint or is breathing in short, rapid breaths, treat for shock by laying the person down with their head slightly lower than their trunk, and if possible, elevate the legs.

Spinal Injury

If you suspect a back or neck (spinal) injury, **do not** move the victim, permanent paralysis and other serious complications can result. Symptoms of a spinal injury include:

- The neck or back is twisted or positioned oddly
- Evidence of a head injury including a change in the person’s level of consciousness
- Severe pain in the victim’s neck or back
- The victim is unable to move his or her neck
- Weakness, numbness or paralysis or lack of control of his or her limbs, bladder or bowel

Treatment:

1. While waiting for emergency medical personnel to arrive, do not allow the victim to move his or her neck. Hold their head, or place heavy towels on either side of their neck.
2. If the victim stops breathing, begin CPR but do not tilt the head back to open the airway. Gently grasp the jaw and lift it forward.
3. If the victim is in danger of choking on blood or vomiting, use at least two people to turn them, keeping the head, neck and back aligned.

Breathing

Contents

Breathing

Anaphylaxis

Is a severe allergic reaction that can produce shock and life-threatening respiratory distress and circulatory collapse.

Anaphylaxis can occur within minutes or up to several hours after exposure to an allergy-causing substance, such as insect venom, pollen, latex, drugs, nuts and shell fish. Some people have anaphylactic reactions from unknown causes.

Symptoms:

- Breaking out in hives
- Swelling of the eyes or lips
- Swelling of the throat to the point of causing difficulty breathing and shock
- Dizziness or mental confusion
- Abdominal cramping, nausea, vomiting or diarrhea
- Drop in blood pressure which causes internal organs to be affected

Treatment:

If you observe someone having an allergic reaction with signs of anaphylaxis:

1. Call 911 or your local medical emergency number.
2. Look for a medical emergency ID bracelet or necklace.
3. Check for special medications that the person might be carrying such as an auto-injector of epinephrine (e.g., EpiPen).
4. Administer the drug as directed, usually by pressing the auto-injector against the person’s thigh and holding it there for several seconds, then massage the injection site for 10 seconds to enhance absorption.
5. If the person can do so without choking, have them take an antihistamine such as Benadryl pill because epinephrine is only short acting.
6. Have the person lie still on his or her back with feet higher than the head.
7. Loosen tight clothing and cover the person with a blanket. Don’t give them anything to drink.
8. If the person is vomiting or bleeding from the mouth, turn them on their side to prevent choking.
9. If the person is not breathing, coughing or moving, begin CPR.

Asthma

Asthma is a chronic, inflammatory disease in which the lining of a person's airways becomes swollen and inflamed, the muscles surrounding the airways tighten and mucus production is increased, leading to mucus plugs. Asthma symptoms resemble other respiratory problems such as emphysema, bronchitis, and lower respiratory infections. Symptoms include:

- A chronic cough, especially at night
- Coughing and wheezing that occurs with exercise
- Difficulty or painful breathing
- A wheezing or whistling sound

An asthma attack can be triggered by:

- Pollens
- Mold
- Animal protein such as dander, urine, oil from skin
- House dust or dust mites
- Cockroaches
- Certain foods
- Tobacco smoke
- Exercise
- Strong odors such as perfumes, household cleaners, cooking fumes, paints, and varnishes
- Chemicals such as coal, chalk dust, or talcum powder
- Air pollutants
- Wood smoike from heating stoves and fireplaces
- Changing weather such as changes in temperature, barometric pressure, humidity, or strong winds
- Exposure to vapors, dust, gases, or fumes
- Medications such as aspirin, other non-steroidal anti-inflammatory medications, such as ibuprofen, indomethacin, naproxen
- Sulfites used as preservatives in food and beverages

Treatment:

1. Sit the victim upright.
2. Shake an asthma inhaler, place the mouthpiece in the victim's mouth and give one puff.
3. Have the person inhale slowly and steadily.
4. Have the victim hold that breath for four seconds, then take four nomrla breaths.
5. Repeat until four puffs from the inhaler have been given.
6. Wait four minutes, if there is no improvement, give another 4 puffs.

7. If there is still no improvement, seek medical assistance immediately.
8. Continue giving 4 puffs every 4 minutes until the ambulance arrives, you can give adults up to 6 - 8 puffs every five minutes.

Choking

Choking occurs when a foreign object becomes lodged in a victim's windpipe, blocking the flow of air. Adults usually choke on a piece of food, while young children often choke on small objects. Because choking cuts off oxygen to the brain, administer first aid as quickly as possible. To prepare yourself for choking situations, learn the Heimlich maneuver and CPR in a certified first-aid training class.

Signs of choking include:

- The victim clutches their throat
- Is unable to talk
- Breathes noisily or has difficulty breathing
- Is unable to cough forcefully
- Victim's skin, lips and nails turn blue or dusky
- Victim loses consciousness

Treatment:

1. If you are the only rescuer, perform the back blows and abdominal thrusts before calling 911.
2. Pound five times between the victim's shoulder blades with the heel of your hand.
3. Perform five abdominal thrusts known as the Heimlich maneuver.
4. Alternate between five back blows and five abdominal thrusts until the blockage is dislodged.
5. If the choking victim is unconscious, lower them to the floor, open their mouth, and look into their throat to see if there's a visible blockage.
6. Reach a finger into their throat and sweep out the cause of the blockage. **Note:** Be careful not to push the obstruction further into the airway; this can happen easily with young children.
7. Begin CPR. The chest compressions used in CPR may dislodge the object. Recheck the mouth periodically.

Treatment For a Child Younger Than 1:

1. Sit down, rest your forearm on your thigh and place the infant face down over your forearm.

2. Using the heel of your hand, thump the infant firmly five times on the middle of their back. The combination of gravity and the back blows should release the obstruction.
3. If the obstruction doesn't come out, turn the infant face up over your forearm, making sure their head is lower than their trunk.
4. Place two fingers at the center of the infant's breastbone, and give five quick chest compressions. For children older than age 1, use abdominal thrusts only.
5. Repeat the back blows and chest compressions.
6. If the obstruction is removed, but the infant doesn't resume breathing, perform infant CPR.

CPR (Cardiopulmonary Resuscitation)

Cardiopulmonary resuscitation (CPR) is a lifesaving technique used when someone's breathing or heartbeat has stopped. A combination of chest compression and mouth-to-mouth breathing keeps oxygenated blood flowing to the brain and other vital organs until additional medical treatment can restore a normal heart rhythm.

Time is critical when the heart or breathing stops. The absence of oxygenated blood can cause irreparable brain damage in only a few minutes, and death will occur within eight to 10 minutes. To determine whether a person is breathing, look for chest motion, listen for breath sounds, and feel for the person's breath on your cheek and ear. Gasping is not considered to be normal breathing.

If the person isn't breathing normally and you are trained in CPR, begin mouth-to-mouth breathing. If you believe the person is unconscious from a heart attack and you haven't been trained in emergency procedures, skip mouth-to-mouth breathing and proceed directly to chest compression.

To learn CPR properly, take an accredited first-aid training course, that includes CPR and how to use an automatic external defibrillator (AED).

If more than one person is assisting a victim, have one of them immediately call 911, while the other begins CPR. If you are alone, begin CPR for one minute then call 911. If an AED is available, deliver one shock as advised by the device, then begin CPR.

Treatment:

Resuscitate a victim according to the ABCs - Airway, Breathing and Circulation.

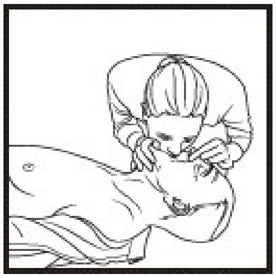
Airway - Clear the airway:

1. Place the person on his or her back on a firm surface such as the floor.
2. Kneel next to the person's neck and shoulders.
3. Open the person's airway by tilting their head back and gently lifting their chin forward.

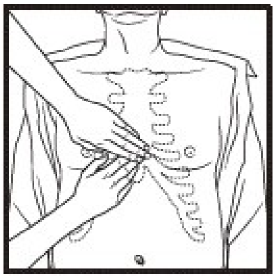
Breathing - Breathe for the person:

You can use either mouth-to-mouth or mouth-to-nose breathing if the victim's mouth is seriously injured or can't be opened.

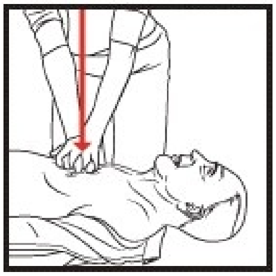
1. For mouth-to-mouth breathing, pinch the victim's nostrils shut and cover their mouth with yours, making a seal.
2. Breathe into the victim's mouth and watch to see if their chest rises. If it does rise, give a second breath. If it doesn't rise, reposition the victim's head-tilt and chin-lift, then give another breath.



Rescue Breathing



CPR Hand Placement



CPR Thrust

Circulation - Restore blood circulation with chest compressions:

1. Place the heel of one hand over the center of the victim's chest, between their

nipples. Place your other hand on top of the first hand, and keep your elbows straight with your shoulders positioned directly above your hands.

2. Use your upper body weight, not just your arms, to push straight down on the victim's chest. You want to push the victim's chest down approximately 2 inches (5 centimeters) using hard and fast pushes. Give two compressions per second, or about 120 compressions per minute.
3. After 30 compressions, give two rescue breaths then repeat the cycle of 30 compressions followed by two breaths.
4. If the victim has not begun moving after five cycles, about two minutes, use an automatic external defibrillator (AED) if available. The American Heart Association recommends administering one shock, then resuming CPR for two more minutes before administering a second shock
5. Continue CPR until there are signs of movement or until emergency medical personnel arrive.

Performing CPR on a child:

1. If you're alone, perform five cycles of compressions and breaths on a child (about two minutes) **BEFORE,** calling 911 or or using an AED.
2. Use only one hand to perform heart compressions and breath more gently.
3. Use the same compression-breath cycle as is used for adults: 30 compressions followed by two breaths. Immediately begin the next cycle.
4. If there is no response after five cycles (about two minutes), use an AED if available. Use pediatric pads if they are available; if not, use adult pads.
5. Continue until the child moves or until emergency medical personnel arrive.

Performing CPR on a Baby:

If an infant loses consciousness, gently stroke the baby and watch for a response, such as movement. **NEVER shake an infant**. Most cardiac arrests in infants occur from lack of oxygen caused by drowning or choking. If you know the infant has an airway obstruction, perform first aid for choking. If you don't know why the infant isn't breathing, perform CPR.

Check for breathing by putting your ear near the baby's mouth or feeling for breath on your cheek and ear. Look for chest motion.

1. If another person is available, have them call 911 while you begin CPR. If you're the only rescuer, perform CPR for two minutes (about five cycles) **BEFORE** calling 911.
2. Place the baby on his or her back on a firm, flat surface, such as a table or floor.
3. Tip the baby's head back and lift their chin.

4. Cover **BOTH** the baby's mouth and nose with your mouth

5. Use your cheeks instead of deep breaths from your lungs, to give a gentle puff of air. Watch to see if the baby's chest rises. If it does, give a second breath. If it doesn't, reposition the baby's head-tilt and chin-lift, then give a second breath

6. If the chest still doesn't rise, examine the baby's mouth for an obstruction. If an object is seen, sweep it out with your finger. If the airway seems blocked, perform first aid for a choking infant.

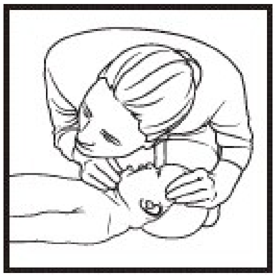
7. Imagine a horizontal line drawn between the baby's nipples, then place two fingers of one hand just below this line in the center of the baby's chest.

8. Gently compress the chest about one-third to one-half the depth of the chest.

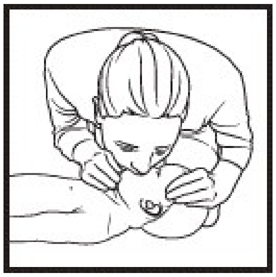
9. Press about 100 to 120 times a minute.

10. After every 30 chest compressions, give two breaths.

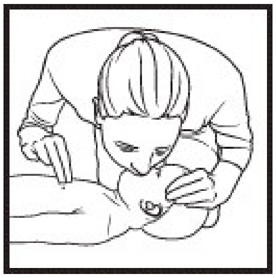
11. Continue CPR until you see signs of life or until emergency medical personnel arrive.



Infant CPR Head Placement



Infant CPR Rescue Breathing



Infant CPR Thrust

Drowning

In a near-drowning, the sooner the rescue and first aid begin, the greater the victim's chance of survival. Do not endanger yourself while rescuing someone. Rescue options include:

1. Throw the victim a rope with a buoyant object.
2. Use a long stick.
3. From a boat, grasp the victim and tow them to shore. Do not try to hoist a victim into a small boat because it may cause the boat to capsize.
4. If you are trained in water rescue, approach the person from behind and grab a piece of their clothing or cup your hand or arm under their chin then pull them to safety. Never attempt a rescue beyond your capabilities.

To rescue a victim who has fallen through the ice:

1. Never walk on the ice to rescue someone
2. Throw a rope or offer a long stick, then pull the victim out and across the ice on their belly to distribute their weight as evenly as possible.
3. Do not have the victim try to climb on the ice edge because it results in more ice breaking.
4. If the victim is unconscious, tie a rope around your waist, secure the other end, and slide out on the ice on your belly to reach the victim.
5. Form a human chain with everyone lying down to reach the victim.

Treatment:

1. If the victim isn't breathing, begin mouth-to-mouth resuscitation as soon as you can, even while still in the water.
2. If the victim's airway is obstructed making breathing impossible, perform the Heimlich maneuver to clear it.
3. Once on shore, if the victim is not breathing, start CPR and continue until emergency medical personnel arrive.
4. If the victim is breathing, place them on their stomach with their arms extended at shoulder level and bent, their head turned to one side and the leg on the same side drawn up at a right angle to the torso. This position allows swallowed water to drain.
5. Keep the victim warm by removing wet clothing and covering with warm blankets to prevent hypothermia.

Foreign Object Inhaled

If an adult or child inhales a foreign object, seek medical attention. If the inhaled object causes choking, perform first aid as described below. If you're the only rescuer, perform first aid before calling 911.

Treatment:

1. With the heel of your hand, pound five times on the victim's back between their shoulder blades.
2. Perform five abdominal thrusts also known as the Heimlich maneuver.
3. Alternate five back blows with five abdominal thrusts until either the object is dislodged or medical personnel arrive.

Heart Attack

A heart attack occurs when an artery that supplies blood and oxygen to your heart muscle becomes blocked. Pain from a heart attack generally lasts longer than 15 minutes, however, heart attacks can also be silent, with no signs or symptoms.

The main symptom of a heart attack may be recurrent chest pain that's triggered by exertion and relieved by rest. Someone having a heart attack may experience any or all of the following symptoms:

- Uncomfortable pressure, fullness or squeezing pain in the center of the chest lasting more than a few minutes
- Pain spreading to the shoulders, neck or arms
- Lightheadedness, fainting, sweating, nausea or shortness of breath

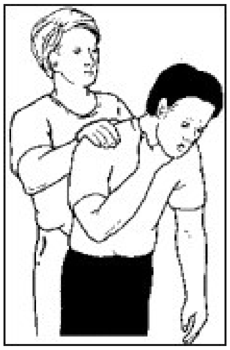
Treatment:

1. For symptoms lasting more than five minutes, call 911.
2. Do not allow the victim to drive himself or herself to an emergency room. It puts the victim and fellow drivers at risk should the symptoms worsen.
3. Have the victim chew a regular-strength aspirin; aspirin can inhibit blood clotting. Don't give aspirin if the person is allergic to it or has been advised not to take it by their doctor.
4. If the victim has been prescribed nitroglycerin, have them take it as directed.
5. If the victim is unconscious, begin CPR. A 911 dispatcher can advise you how to perform CPR.

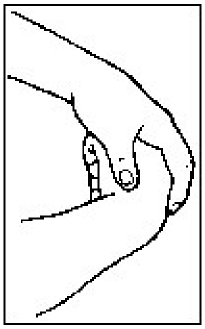
Heimlich Maneuver

To perform the Heimlich maneuver on a choking victim:

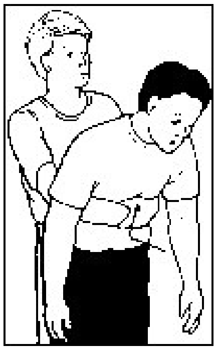
1. Stand behind the victim and wrap your arms around their waist.
2. If possible, tip the person lightly forward.
3. Make a fist with one hand and position it slightly above the person’s navel.
4. Grasp the fist with your other hand and with a quick, upward thrust press hard into the victim’s abdomen as if you were trying to lift that person up.
5. If the blockage isn’t dislodged, perform a total of five abdominal thrusts.



Heimlich Maneuver Body Position



Heimlich Maneuver Fist



Heimlich Maneuver Thrust

To perform the Heimlich maneuver on yourself:

1. Place your fist slightly above your navel.
2. Grasp your fist with your other hand and bend over a hard surface, such as a countertop, table or chair.
3. Press against the countertop, table or chair to shove your fist inward and

upward.

To perform the Heimlich maneuver on a choking victim:

1. Stand behind the victim and wrap your arms around their waist.
2. If possible, tip the person lightly forward.
3. Make a fist with one hand and position it slightly above the person’s navel.
4. Grasp the fist with your other hand and with a quick, upward thrust press hard into the victim’s abdomen as if you were trying to lift that person up.
5. If the blockage isn’t dislodged, perform a total of five abdominal thrusts.

To perform the Heimlich maneuver on a pregnant woman or obese person:

1. Place your fist higher, at the base of the victim’s breastbone just above where it joins with the lowest ribs.
2. Grasp your fist with your other hand and quickly thrust inward and upward.
3. Repeat until the food or other blockage is dislodged.

Using an Automated External Defibrillator

Recent implementation of state public access defibrillation (PAD) laws and the Food and Drug Administration’s approval of “home use” AEDs have made AEDs available to rescuers in many places, including the following:

- Airports and airplanes
- Stadiums
- Health clubs
- Golf courses
- Schools
- Government buildings
- Offices
- Homes

The heart has four hollow chambers, two on the right that receive blood from the body and send it to the lungs for oxygen, and two on the left side that receive freshly oxygenated blood from the lungs and sent it throughout the body.

The upper right chamber of the heart has special pacemaker cells that control the rate at which the heart beats. If the coronary arteries surrounding the heart become diseased (atherosclerosis) either sufficient oxygen cannot get to the pacemaker cells or sufficient blood cannot get to the heart muscle resulting in a heart attack.

An AED is an electronic device that analyzes the heart rhythm and, if necessary, delivers an electrical shock, known as defibrillation. While many different models of AED exist, they all have the following elements in common:

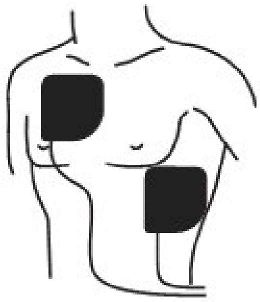
- Power on/off mechanism
- Cable and pads (electrodes
- Analysis capability
- Defibrillation capability
- Prompts to guide you
- Battery operation for portability

Treatment:

1. Do not use an AED on a child under 1 year of age.
2. Perform CPR until the AED is available.
3. If the victim’s chest is wet or moist, dry it with a towel.
4. Remove the backing from the pads and apply them to the victim’s bare chest according to the diagram on the pads. For a child, use child pads if available.
5. Attach the cable to the AED.
6. Stand clear and analyze the heart rhythm.
7. Deliver a shock if indicated.
8. Perform CPR for five cycles.
9. Check the victim and repeat the steps above if needed.
10. Continue providing care until EMS personnel arrive.

Do not use an AED near water. Move the victim to a dry location. Remove any medicated adhesive patches, such as nicotine, birth control, nitroglycerin or pain medication, from the victim before using the AED. Avoid placing the pads directly over a pacemaker. These devices can often be seen or felt when the victim’s chest is exposed.

Automated External Defibrillator



Placement of AED Pads

[Burns]

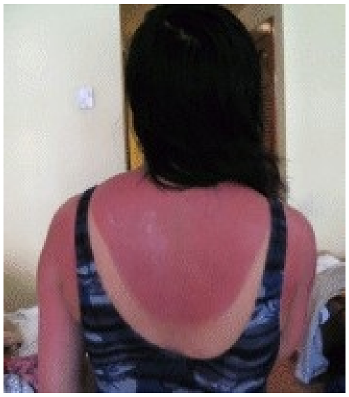
[Contents]

Burns

1st, 2nd, 3rd Degree Burns

Treatment of burns is dependent on their severity: first degree, second degree, or third degree.

First-degree burns - only the outer layer of skin is affected and has not been burned through. Redness, swelling and pain are present. These type of burns can usually be treated at home, unless they involve the hands, feet, face, groin or buttocks, or a major joint.

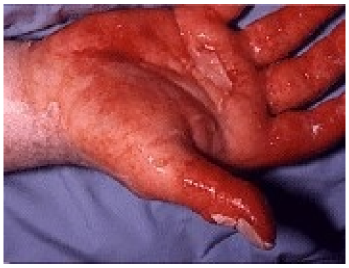


First Degree Burn

Second-degree burns - the first layer of skin has been burned through and the second layer of skin, the dermis, has been burned. Blisters develop and the skin is intensely painful and reddened, swollen, and has a splotchy appearance. Second degree burns usually require medical treatment, especially if they occur on the hands, feet, face, groin or buttocks, or over a major joint.

Third-degree burns - all layers of the skin have been burned through including fat, muscle and even bone. Burned areas may be charred black or appear dry and white. For this type of burn, medical treatment is always required.

If treating first or second degree burns at home, watch for signs of infection, such as increased pain, redness, fever, swelling or oozing. If infection develops, seek medical attention immediately. First and second degree burns heal well, but may cause permanent pigment changes to the skin. Avoid re-injuring the burn, and for a year afterward, avoid tanning which can cause more extensive pigmentation changes. Cover the area with sunscreen for at least a year.



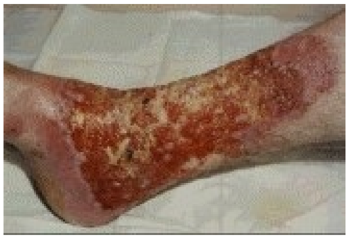
Second Degree Burn

Treatment:

1. For first or second degree burns no larger than 3 inches (7.5 centimeters) cool the burn by holding it under cold running water for at least five minutes, by immersing it in cold water, or by using cold compresses. Cooling the burn reduces swelling by conducting heat away from the skin. **Do not put ice on a burn**.
2. Cover the burn with a sterile gauze bandage, wrap the gauze loosely to avoid putting pressure on the skin. Bandaging keeps air off the burned skin, reduces pain and protects blistered skin
3. Take a pain reliever (aspirin, ibuprofen, naproxen or acetaminophen). **Do not give aspirin to children or teenagers**.

For third degree burns:

1. Call 911 immediately. Until help arrives, do not put ice on the burn, this can cause frostbite, which can further damage the skin.
2. Do not apply butter or ointments to the burn; these can impair future healing.
3. Don't break any blisters that may form; breaking them makes the skin prone to infection.
4. Don't remove burnt clothing, doing so may further damage the skin, however, make sure the victim is no longer in contact with smoldering materials or exposed to smoke or heat.
5. Don't immerse large severe burns in cold water, doing so can cause the victim to go into shock.
6. Elevate the burned body part or parts above the level of the heart if possible.
7. Cover the burned area with a cool, moist, sterile bandage, cloth or towel.
8. If the victim is not breathing, begin CPR.



Third Degree Burn

Chemical Burns

Chemical burns of the skin can be caused by exposure to acids or strong bases such as silver nitrate ($AgNO_3$), hydrochloric acid (HCl), lye (NaOH), and lime (CaO). If you're unsure whether a substance is toxic, call the Poison Control Center at 800-222-1222. If you take the victim for treatment, be sure to bring the chemical container or a complete description of the substance with you for identification.

Minor chemical burns usually heal without further treatment. Seek emergency medical assistance if:

- The victim shows signs of shock, such as fainting, pale complexion or breathing in a noticeably shallow manner
- The chemical burn penetrates through the first layer of skin, and the resulting second-degree burn covers an area more than 3 inches (7.5 centimeters) in diameter.
- The burn occurred on the eye, hands, feet, face, groin or buttocks, or over a major joint
- The victim has pain that cannot be controlled with over-the-counter pain relievers such as aspirin, ibuprofen, acetaminophen or others

Treatment:

1. If the source of the burn is a powder, such as lime, brush it off the skin before flushing.
2. Flush chemicals off the skin surface with cool, running water for at least 20 minutes.
3. Remove clothing or jewelry that has been in contact with the chemical.
4. Apply a cool, wet cloth or towel to relieve pain.
5. Wrap the burned area loosely with a dry, sterile dressing or a clean cloth. Do not use fluffy cotton, which can stick to or irritate the skin.

Electrocution

Electrocution causes both electrical shock and electrical burns. Electrical burns may appear on the skin at all, but can extend deep within the tissues of the body. Electrocution can also cause heart rhythm disturbance, or cardiac arrest. Sometimes the electrical jolt causes the victim to be thrown or to fall, resulting in fractures or other injuries.

The outcome of an electrocution is dependent on how high the voltage is, how the current traveled through the victim’s body, the victim’s overall health, and how quickly the person is treated.

Call for emergency assistance if any of these symptoms appear:

- Cardiac arrest
- Heart rhythm problems (arrhythmias)
- Respiratory failure
- Muscle pain and contractions
- Seizures
- Numbness and tingling
- Unconsciousness

Treatment:

1. Do not immediately touch the victim. Examine them first to make sure they are no longer in contact with the electrical source. Touching a victim still in contact with the source will pass the current on through you.
2. If possible, turn off the source of the electricity. If not possible, move the source away from both you and the victim using a dry, non-conducting object made of cardboard, plastic or wood.
3. Don’t get near high-voltage wires until the power is turned off. Stay at least 20 feet away or farther if the wires are jumping and sparking.
4. Don’t move a victim unless they are in immediate danger.
5. Call for emergency medical assistance immediately if the victim is: in pain, confused, is experiencing changes in their breathing, heartbeat or consciousness.
6. Check for signs of breathing and circulation. If absent, begin CPR immediately.
7. Prevent shock by laying the victim down with their head slightly lower than their trunk and their legs elevated.
8. Cover burned areas with a sterile gauze bandage, if available, or with a clean cloth. Do not use a blanket or towel because loose fibers from these can stick to the burn.

Sunburn

Symptoms of sunburn usually appear within a few hours of exposure and include: pain, redness, swelling and occasional blistering. Because sunburn usually affects a large area of skin, it can cause headache, fever and fatigue.

Do not put petroleum jelly, butter or other home remedies on a sunburn, they can prevent or delay healing. Seek medical attention if the sunburn begins to blister, or the victim gets a rash, itching or fever.

Treatment:

1. Take a cool bath adding 1/2 cup of cornstarch, oatmeal or baking soda to the bath water to soothe the skin.
2. Apply an aloe vera lotion several times a day.
3. Don’t burst any blisters, if they break on their own, apply an antibacterial ointment.
4. Take an over-the-counter pain reliever such as aspirin, ibuprofen naproxen or acetaminophen for pain. Never give aspirin to children.

Chest

Contents

Chest

Chest Wall Pain

A harmless kind of chest pain is chest wall pain called costochondritis. It is pain and tenderness in the cartilage connecting the ribs to the breastbone (sternum).

To determine if a victim has costochondritis, press at a few points along the margin of the sternum. If this results in considerable pain and tenderness limited to those small areas, the victim most likely has chest wall pain rather than a heart attack.

Chest wall pain can also be caused by:
- Strained chest muscles from exercise or excessive coughing
- Chest muscle bruising from minor trauma such as a car accident
- Acute anxiety with rapid breathing
- Pain from the gastrointestinal tract, such as esophageal reflux, peptic ulcer, or gallbladder.

Pneumonia and Pleurisy

Symptoms of pneumonia are chest pain accompanied by chills, fever and a cough that may produce bloody or foul-smelling sputum. When pneumonia is accompanied by an inflammation of the membranes surrounding the lung, the pleura, the condition is called pleurisy.

Pleurisy’s symptoms include considerable chest discomfort when inhaling or coughing. A significant sign of pleurisy is that the chest pain is relieved temporarily when the victim holds their breath, or when pressure is put on the painful area of their chest. This is not true of a heart attack.

Treatment:
1. Pleurisy by itself is not considered a medical emergency.
2. If cough, fever or chills accompany your chest pain, see your doctor.

Pulmonary Embolism

An embolus is an accumulation of foreign material, usually a blood clot, that blocks an artery. The tissue supplied by the blocked artery is then damaged by the sudden loss of blood. Pulmonary embolisms occur in a lung artery and are usually caused by a clot breaking free from the veins of the leg or pelvis.

Symptoms of pulmonary embolism include:

- Sudden, sharp chest pain that begins or worsens with a deep breath or a cough
- Sudden, unexplained shortness of breath, even without pain
- A cough that produces blood-streaked sputum
- Rapid heartbeat
- Anxiety and excessive perspiration

Treatment:

1. Dial 911 or call for emergency medical assistance immediately.

Diabetic Emergencies

Contents

Diabetic Emergencies

Hyperglycemia - High Blood Sugar

Hyperglycemia occurs when a person has too much sugar in their blood, and can be caused by not taking enough insulin, overeating, inactivity, illness or stress. Untreated, it can lead to diabetic coma. Symptoms of hyperglycemia are:

- Gradual onset
- Drowsiness
- Extreme thirst
- Very frequent urination
- Flushed skin
- Vomiting
- Fruity breath odor
- Heavy breathing
- Eventual unconsciousness

Treatment:

1. If you are unsure whether the person is suffering from hyperglycemia or hypoglycemia, administer some food or drink that contains sugar.
2. Wait 15 minutes.
3. If you do not see signs of improvement, seek medical attention immediately.

Hypoglycemia - Low Blood Sugar

Diabetes is a condition in which insulin, a hormone produced by the pancreas that helps the body use the energy in food, is either lacking or ineffective. Insulin allows the body's cells to convert blood sugar (glucose) into energy. There are two types of diabetes: Type I, also called insulin-dependent, sufferers require external insulin, Type II, also called non-insulin-dependent, suffers can build up very levels of sugar in their blood.

In diabetics, their bodies are continuously balancing sugar and insulin. Too much insulin and not enough sugar leads to low blood sugar (hypoglycemia), and possibly insulin shock. Too much sugar and not enough insulin leads to high blood sugar (hyperglycemia) and possibly diabetic coma.

Low blood sugar is sometimes referred to as an *insulin reaction*. It can be caused by taking too much insulin, delaying eating or eating too little food, exercise, or alcohol. Symptoms of hypoglycemia are:

- Sudden onset
- Staggering, poor coordination
- Anger, bad temper
- Pale color
- Confusion, disorientation
- Sudden hunger
- Excessive sweating
- Trembling
- Eventual unconsciousness

Treatment:

1. Give the victim two large teaspoons or lumps of sugar, or one-half can of regular soda, or 4 oz. Orange juice, or 2 - 5 glucose tablets.
2. Wait 15 minutes.
3. If no improvement, repeat step 1.
4. If still no improvement, seek medical attention immediately.

Ear

Contents

Ear

Foreign Object In Ear

A foreign object in the ear can cause pain and hearing loss. Adults usually you know if an object is stuck in your ear, but small children may not be aware of it.

Treatment:

1. Use gravity by tilting the victim’s head to the affected side.
2. Never use a tool such as a cotton swab or paperclip, to remove a foreign object. You risk pushing the object farther into the ear and damaging the sensitive structures of the middle ear.
3. If the object is visible, try grasping it with tweezers.
4. Seek medical attention if the person experiences extreme pain, bleeding or discharge from the ear. These are symptoms of a perforation of the eardrum.

Insect In Ear

For an insect in the ear:

1. Lay the victim down with the affected ear facing upward.
2. Pour a small amount of mineral oil, olive oil or baby oil into the ear.
3. After several minutes, have the person turn their head so that the affected ear faces download. The insect should have suffocated and will float out with the oil.
4. Do not use oil to remove any object other than an insect.
5. Seek medical attention if the person experiences extreme pain, bleeding or discharge from the ear. These are symptoms of a perforation of the eardrum.

Eye

Contents

Eye

Chemical In Eye

If a chemical splashes into a victim’s eye(s), don’t allow them to rub their eye(s). This may cause further damage. Don’t put anything except water or contact lens saline solution into the eye(s), and don’t use eye drops unless directed to do so by emergency medical personnel.

After following the procedures below, seek medical assistance. Take the chemical container or the name of the chemical with you to the emergency department. Have the victim wear sunglasses because their eyes will be sensitive to light.

Treatment:

1. Quickly wash your hands with soap and water to make sure there is no chemical on them.
2. If the victim is wearing them, have them carefully remove their contact lenses.
3. If at home, have the victim get into the shower and flush the eye(s) with lukewarm tap water for at least 20 minutes.
4. If not at home, place the victim’s head under a water faucet. Have them turn their head to the side, then flush the eye(s) with lukewarm tap water for at least 20 minutes.
5. Lay young children in the bathtub then pour a gentle stream of water over the affected eye(s) for at least 20 minutes.

Corneal Abrasion

The cornea is the clear, protective "window" at the front of the eye. Dust, dirt, sand, wood shavings, metal particles and even paper can scratch or cut the cornea. This is called an abrasion. A corneal abrasion that becomes infected can result in a corneal ulcer, which is a serious medical problem.

Corneal abrasions often occur when playing sports, performing home repairs, or playing with young children. The cornea can also be damaged by contact with chemicals, such as antifreeze or household cleaners, or substances. For first aid if this happens, see Chemicals in the Eye.

Because the cornea is extremely sensitive, abrasions are painful, and victims often feel as if they have sand in their eye(s). Symptoms of corneal abrasion include:

- Tearing
- Blurred vision
- Increased sensitivity to light
- Redness around the eye(s)
- Headache

Treatment:

1. Use saline solution or clean water to rinse the eye. Rinsing the eye may wash out the offending foreign body.
2. Fill a small, clean glass with tepid water and position its rim against the bone at the base of the eye socket.
3. If a job site has an eye-rinse station, use it.
4. Have the victim blink several times. Blinking may remove small particles of dust or sand.
5. Gently pull the victim's upper eyelid over their lower eyelid. The lashes of the lower eyelid can sometimes brush a foreign body from the inside of the upper eyelid.
6. Never remove an object that's embedded in the eyeball even if the object is large and prevents the eye from closing.
7. Don't allow the victim to rub their eye(s). Touching or rubbing can worsen an abrasion.
9. Don't use tweezers, cotton swabs or other instruments. These can also worsen a corneal abrasion.

Foreign Object In Eye

For objects embedded in a victim's eye(s), do not try and remove them, even if they prevent the eye from closing. Seem medical attention immediately. Do not allow the victim to rub the affected eye(s).

Treatment:

1. Wash your hands and have the victim sit in a well-lighted area.
2. See if you can see the object by gently pull the lower eyelid down and having the victim look up, then pulling the upper lid up and having the person look down.
3. Use an eyecup or a small, clean glass positioned beneath the eye to flush the eye with either saline solution, or clean lukewarm water.

4. Seek medical attention immediately if the victim experiences abnormal vision, pain, redness or the sensation of the object still being in the eye after it has been removed.

Foreign Objects

Contents

Foreign Objects

Foreign Object in Ear

A foreign object in the ear can cause pain and hearing loss. Adults usually you know if an object is stuck in your ear, but small children may not be aware of it.

Treatment:

1. Use gravity by tilting the victim's head to the affected side.
2. Never use a tool such as a cotton swab or paperclip, to remove a foreign object. You risk pushing the object farther into the ear and damaging the sensitive structures of the middle ear.
3. If the object is visible, try grasping it with tweezers.
4. Seek medical attention if the person experiences extreme pain, bleeding or discharge from the ear. These are symptoms of a perforation of the eardrum.

Foreign Object in Eye

For objects embedded in a victim's eye(s), do not try and remove them, even if they prevent the eye from closing. Seem medical attention immediately. Do not allow the victim to rub the affected eye(s).

Treatment:

1. Wash your hands and have the victim sit in a well-lighted area.
2. See if you can see the object by gently pull the lower eyelid down and having the victim look up, then pulling the upper lid up and having the person look down.
3. Use an eyecup or a small, clean glass positioned beneath the eye to flush the eye with either saline solution, or clean lukewarm water.
4. Seek medical attention immediately if the victim experiences abnormal vision, pain, redness or the sensation of the object still being in the eye after it has been removed.

Foreign Object in Nose

While small children often place foreign objects in their noses, adults can also have a foreign object become lodged in their noses.

Treatment:

1. Have the victim blow their nose to try to free the object. If only one nostril is affected, have them close the other nostril before blowing. Do not allow the victim to blow hard or repeatedly.
2. If the object is visible, gently try to remove it with tweezers
3. For objects that aren't visible, never probe with a cotton swab or other tool, instead seek medical attention.
4. Do not have the victim try to inhale the object. Have them breathe through their mouth until the object can be removed by medical personnel.
5. If the object cannot be removed, seek medical attention immediately

Foreign Object in Skin

Typical foreign objects that become embedded in the skin are wood splinters, fiberglass, or small pieces of glass.

Treatment:

1. Wash your hands and clean the around the area where the object is embedded.
2. If the object is visible and at the skin's surface, remove it using tweezers. A magnifying glass can help you see the object better.
3. For more deeply embedded objects, sterilize a clean, sharp needle with either rubbing alcohol or soap and water.
4. Use the needle to break the skin over the object then gently lift the tip of the object out.
5. Once the object is removed, wash and pat-dry the area, then apply an antibiotic ointment.
6. If you are unable to remove the object, seek medical attention.

Foreign Object Inhaled

If an adult or child inhales a foreign object, seek medical attention. If the inhaled object causes choking, perform first aid as described below. If you're the only rescuer, perform first aid before calling 911.

Treatment:

1. With the heel of your hand, pound five times on the victim's back between their shoulder blades.
2. Perform five abdominal thrusts also known as the Heimlich maneuver.
3. Alternate five back blows with five abdominal thrusts until either the object

is dislodged or medical personnel arrive.

Foreign Object Swallowed

If swallowed, some foreign objects pass uneventfully through the digestive tract, while others present a problem. Sharp, pointed objects or small batteries, such as those used in watches or calculators, can cause serious injury and should be removed as quickly as possible.

Treatment:

1. With the heel of your hand, pound five times on the victim’s back between their shoulder blades.
2. Perform five abdominal thrusts also known as the Heimlich maneuver.
3. Alternate five back blows with five abdominal thrusts until either the object is dislodged or medical personnel arrive.

Head

Contents

Head

Headache

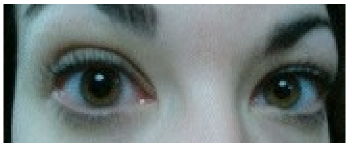
Most headaches are minor, and you can treat them with a pain reliever such as aspirin, ibuprofen, naproxen or acetaminophen. However, some headaches signal a serious medical condition. Seek medical attention if the headache:

- Develops suddenly and severely and steadily worsens
- Is accompanied by a fever, stiff neck, rash, mental confusion, seizures, changes in vision, dizziness, weakness, loss of balance, numbness or difficulty speaking
- Is severe and follows a recent sore throat or respiratory infection
- Begins or worsens after a head injury, fall or bump
- Is a new pain, and the victim is older than 50
- Is excruciating and affects just one, reddened eye
- Progressively worsens over the course of a single day, or persists for several days

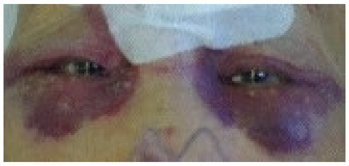
Head Injury

Most head injuries are minor and don't require medical attention, however, call 911 if the victim has any of the following symptoms:

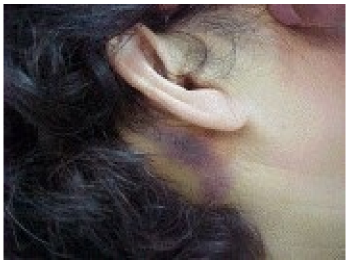
- Confusion, slurred speech or loss of balance
- Weakness or an inability to use an arm or leg
- Unequal pupil sizes
- Repeated vomiting
- Seizures
- Severe head or facial bleeding
- Bleeding from the nose or ears
- Severe headache
- Change in level of consciousness for more than a few seconds
- Black-and-blue discoloration below the eyes or behind the ears
- Cessation of breathing



Unequal Pupil Sizes



Raccoon Eyes



Bruising Behind Ear

Treatment:

1. Keep the person still and lying down in darkened room, with their head and shoulders slightly elevated. Do not move the person unless necessary, and try to avoid moving their neck.
2. Stop any bleeding by applying direct pressure to the wound with a clean cloth. If you suspect a skull fracture **do not** apply direct pressure.
3. If the victim is not breathing, begin CPR.

Heat and Cold

Contents

Heat and Cold

Frostbite

Frostbite occurs when the skin and underlying tissues freeze when exposed to very cold temperatures. Frostbite usually occurs on the hands, feet, nose and ears, where the skin appears hard, pale and cold. As the area thaws, the flesh becomes red and painful.

Treatment:

1. Get out of the cold, and warm frostbitten hands by tucking them under someone's arms.
2. Warm noses, ears or the face by covering them with dry, gloved hands.
3. While waiting for emergency medical attention, warm severely frostbitten hands or feet in warm, but not hot, water.
4. Never rub frostbitten skin and never rub snow on frostbitten skin.
5. If there's any chance of refreezing, don't thaw affected areas.
6. Seek medical attention if numbness remains during or after warming.

Heat Cramps

Heat cramps are painful, involuntary muscle spasms that can occur during heavy exercise in a hot environment. Not drinking a sufficient amount of fluid while exercising can contribute to the formation of heat cramps.

The muscles most often affected are the calves, arms, abdominal wall and back, however heat cramps can occur in any muscle group.

Treatment:

1. Stop exercising, rest and cool down.
2. Drink clear juice or an electrolyte-containing sports drink.
3. Gently stretch and massage the affected muscle group.
4. Seek medical attention if the cramps don't go away in an hour.

Heat Exhaustion

Heat exhaustion is the second heat-related syndrome, more severe than heat cramps, and less severe than heatstroke, which is potentially life-threatening.

Usually brought on by heavy exercise in a hot environment coupled with inadequate fluid intake, symptoms of heat exhaustion resemble those of shock, and include:

- Feeling faint or dizzy
- Nausea
- Heavy sweating
- Rapid, weak heartbeat
- Low blood pressure
- Cool, moist, pale skin
- Low-grade fever
- Heat cramps
- Headache
- Fatigue
- Dark-colored urine

Treatment:

1. Get the person out of the sun and into a shady or air-conditioned location.
2. Lay the person down and elevate their legs and feet slightly.
3. Loosen or remove the person's clothing.
4. Have them drink cool water.
5. Cool the person rapidly by spraying or sponging them with cool water, then fanning them.
6. If symptoms of heatstroke arise: a fever greater than 102 F (38.9 C), fainting, confusion or seizures, call 911 immediately.

Heatstroke

The most serious of the heat-related syndromes, heatstroke can be brought on by exercise or work in a hot environment, coupled with inadequate fluid intake. Young children, older adults, obese people, and people born with an impaired ability to sweat are at high risk of heatstroke.

Additional risk factors include: alcohol use, cardiovascular disease and certain medications. In heatstroke, the body's normal mechanisms for cooling itself, such as sweating, are lost. The symptoms of heatstroke include:

- A temperature in excess of 104 F (40 C)
- Cessation of sweating
- Irritability, confusion or unconsciousness
- Feeling dizzy or lightheaded
- Headache

- Nausea
- Fainting, which may be the first sign in older adults
- Hot, dry or moist skin
- Rapid heartbeat
- Rapid and shallow breathing
- Elevated or lowered blood pressure

Treatment:

1. Heatstroke is potentially life threatening, call 911 immediately.
2. Move the victim out of the sun and into a shady or air-conditioned location.
3. Cool the person rapidly by spraying them with cool water, or by covering them with damp sheets or towels, then fan them.
4. If they are able, have the victim drink cool water.

Hypothermia

When the body looses more heat than it can generate, hypothermia occurs. It is usually the result of being exposed to cold temperatures or to a cool, damp environment for a prolonged period, wearing wet or inadequate clothing, or falling into cold water. Even having an uncovered head during cold weather can cause hypothermia.

Symptoms of hypothermia usually develop slowly, so a victim may be unaware that they need emergency medical treatment. Older adults, infants, young children and people who are very lean are at most risk, and others whose judgment may be impaired by mental illness, Alzheimer’s disease or intoxication, the homeless, and stranded motorists are also at risk. Other risk factors include malnutrition, cardiovascular disease and an under-active thyroid (hypothyroidism).

Hypothermia is defined as an internal body temperature of less than 95 F (35 C), and its symptoms include:

- Shivering
- Slurred speech
- Abnormally slow breathing
- Cold, pale skin
- Loss of coordination
- Fatigue, lethargy or apathy
- Confusion or memory loss

Treatment:

1. Dial 911 immediately and monitor the victim’s breathing. If breathing stops or seems dangerously slow or shallow, begin CPR immediately.
2. If possible, move the person out of the cold; if not possible, protect them from the wind, cover their head, and insulate their body from the cold ground.
3. Remove wet clothing and replace it with a warm, dry covering.
4. Don’t apply direct heat, or use hot water, a heating pad or a heating lamp to warm the victim. Instead, apply warm compresses to the victim’s neck, chest wall and groin.
5.; Do not warm the victim’s arms and legs, this will force cold blood back toward the victim’s heart, lungs and brain, causing their core body temperature to drop, which can be fatal.
6. Never give alcohol, offer warm, nonalcoholic drinks, unless the person is vomiting.
7. Do not rub or massage the person, gentle handling is required because they are at risk of cardiac arrest.

Illness

Contents

Illness

Abdominal Pain

Causes of abdominal pain range from the minor to life threatening. Call 911 when abdominal pain is accompanied by any of the following symptoms:

- Vomiting blood or bloody diarrhea
- Neck, chest, or shoulder pain
- A rigid or tender abdomen
- Inability to have a bowel movement, especially when accompanied by vomiting
- Pain between shoulder blades
- Dizziness, weakness, sweating or confusion

Altitude Sickness

Also known as Acute Mountain Sickness, altitude sickness occurs at at high altitudes, above 8,000 feet or 2,400 meters and can occur as low as 6,500 feet or 2000 meters. If left untreated, it can progress to the life-threatening conditions high altitude pulmonary edema (HAPE) or high altitude cerebral edema (HACE). Passengers on aircraft aren’t affected because passenger cabins are pressurized.

Altitude sickness 3usually occurs following a rapid ascent and can be prevented by ascending slowly. Most symptoms are only temporary and abate with time as altitude acclimatization occurs. Symptoms begin within 6 to 10 hours after ascent, and include:

- Lack of appetite, nausea, or vomiting
- Fatigue or weakness
- Dizziness or lightheadedness
- Insomnia
- Shortness of breath upon exertion
- Persistent rapid pulse
- Drowsiness and general malaise
- Swelling of the hands, feet, or face

In High Altitude Pulmonary Edema (HAPE), fluid collects in the lungs, and its symptoms include:

- Persistent dry cough
- Fever
- Shortness of breath even when resting

High Altitude Cerebral Edema (HACE), is a swelling of the brain, and its symptoms include:

- Headache that does not respond to pain relievers
- Unsteady walking
- Increasing vomiting
- Gradual loss of consciousness

Mountain climbers typically acclimatize by spending weeks at ever high camps, usually not exceeding 1,000 feet (300 meters) in a day. This allows the body to produce additional red blood cells to carry oxygen. Breathing bottled oxygen can also counteract the effects of altitude sickness, as can drinking plenty of water. The water replaces fluids lost through heavier breathing in the thin, dry air found at altitude.

Treatment:

1. In all cases of altitude sickness, bring the victim down as quickly as possible.
2. In suspected cases of HACE, until the victim can be brought down from altitude, administer dexamethasone to relieve symptoms.
3. If HAPE is suspected, bring the victim down as quickly as possible.

Asthma

Asthma is a chronic, inflammatory disease in which the lining of a person's airways becomes swollen and inflamed, the muscles surrounding the airways tighten and mucus production is increased, leading to mucus plugs. Asthma symptoms resemble other respiratory problems such as emphysema, bronchitis, and lower respiratory infections. Symptoms include:

- A chronic cough, especially at night
- Coughing and wheezing that occurs with exercise
- Difficulty or painful breathing
- A wheezing or whistling sound

An asthma attack can be triggered by:

- Pollens
- Mold
- Animal protein such as dander, urine, oil from skin
- House dust or dust mites

- Cockroaches
- Certain foods
- Tobacco smoke
- Exercise
- Strong odors such as perfumes, household cleaners, cooking fumes, paints, and varnishes
- Chemicals such as coal, chalk dust, or talcum powder
- Air pollutants
- Wood smoike from heating stoves and fireplaces
- Changing weather such as changes in temperature, barometric pressure, humidity, or strong winds
- Exposure to vapors, dust, gases, or fumes
- Medications such as aspirin, other non-steroidal anti-inflammatory medications, such as ibuprofen, indomethacin, naproxen
- Sulfites used as preservatives in food and beverages

Treatment:

1. Sit the victim upright.
2. Shake an asthma inhaler, place the mouthpiece in the victim’s mouth and give one puff.
3. Have the person inhale slowly and steadily.
4. Have the victim hold that breath for four seconds, then take four nomrla breaths.
5. Repeat until four puffs from the inhaler have been given.
6. Wait four minutes, if there is no improvement, give another 4 puffs.
7. If there is still no improvement, seek medical assistance immediately.
8. Continue giving 4 puffs every 4 minutes until the ambulance arrives, you can give adults up to 6 - 8 puffs every five minutes.

CPR (Cardiopulmonary Resuscitation)

Cardiopulmonary resuscitation (CPR) is a lifesaving technique used when someone’s breathing or heartbeat has stopped. A combination of chest compression and mouth-to-mouth breathing keeps oxygenated blood flowing to the brain and other vital organs until additional medical treatment can restore a normal heart rhythm.

Time is critical when the heart or breathing stops. The absence of oxygenated blood can cause irreparable brain damage in only a few minutes, and death will occur within eight to 10 minutes. To determine whether a person is breathing, look for chest motion, listen for breath sounds, and feel for the person’s breath on your cheek and ear. Gasping is not considered to be normal breathing.

If the person isn’t breathing normally and you are trained in CPR, begin mouth-to-mouth breathing. If you believe the person is unconscious from a heart attack and you haven’t been trained in emergency procedures, skip mouth-to-mouth breathing and proceed directly to chest compression.

To learn CPR properly, take an accredited first-aid training course, that includes CPR and how to use an automatic external defibrillator (AED).

If more than one person is assisting a victim, have one of them immediately call 911, while the other begins CPR. If you are alone, begin CPR for one minute then call 911. If an AED is available, deliver one shock as advised by the device, then begin CPR.

Treatment:

Resuscitate a victim according to the ABCs - **A**irway, **B**reathing and **C**irculation.

Airway - Clear the airway:

1. Place the person on his or her back on a firm surface such as the floor.
2. Kneel next to the person’s neck and shoulders.
3. Open the person’s airway by tilting their head back and gently lifting their chin forward.

Breathing - Breathe for the person:

You can use either mouth-to-mouth or mouth-to-nose breathing if the victim’s mouth is seriously injured or can’t be opened.

1. For mouth-to-mouth breathing, pinch the victim’s nostrils shut and cover their mouth with yours, making a seal.
2. Breathe into the victim’s mouth and watch to see if their chest rises. If it does rise, give a second breath. If it doesn’t rise, reposition the victim’s head-tilt and chin-lift, then give another breath

Circulation - Restore blood circulation with chest compressions:

1. Place the heel of one hand over the center of the victim’s chest, between their nipples. Place your other hand on top of the first hand, and keep your elbows straight with your shoulders positioned directly above your hands.
2. Use your upper body weight, not just your arms, to push straight down on the victim’s chest. You want to push the victim’s chest down approximately 2 inches (5 centimeters) using hard and fast pushes. Give two compressions per second, or about 120 compressions per minute.

3. After 30 compressions, give two rescue breaths then repeat the cycle of 30 compressions followed by two breaths.
4. If the victim has not begun moving after five cycles, about two minutes, use an automatic external defibrillator (AED) if available. The American Heart Association recommends administering one shock, then resuming CPR for two more minutes before administering a second shock
5. Continue CPR until there are signs of movement or until emergency medical personnel arrive.

Performing CPR on a child:

1. If you're alone, perform five cycles of compressions and breaths on a child (about two minutes) **BEFORE,** calling 911 or or using an AED.
2. Use only one hand to perform heart compressions and breath more gently.
3. Use the same compression-breath cycle as is used for adults: 30 compressions followed by two breaths. Immediately begin the next cycle.
4. If there is no response after five cycles (about two minutes), use an AED if available. Use pediatric pads if they are available; if not, use adult pads.
5. Continue until the child moves or until emergency medical personnel arrive.

Performing CPR on a Baby:

If an infant loses consciousness, gently stroke the baby and watch for a response, such as movement. **NEVER shake an infant**. Most cardiac arrests in infants occur from lack of oxygen caused by drowning or choking. If you know the infant has an airway obstruction, perform first aid for choking. If you don't know why the infant isn't breathing, perform CPR.

Check for breathing by putting your ear near the baby's mouth or feeling for breath on your cheek and ear. Look for chest motion.

1. If another person is available, have them call 911 while you begin CPR. If you're the only rescuer, perform CPR for two minutes (about five cycles) **BEFORE** calling 911.
2. Place the baby on his or her back on a firm, flat surface, such as a table or floor.
3. Tip the baby's head back and lift their chin.
4. Cover **BOTH** the baby's mouth and nose with your mouth
5. Use your cheeks instead of deep breaths from your lungs, to give a gentle puff of air. Watch to see if the baby's chest rises. If it does, give a second breath. If it doesn't, reposition the baby's head-tilt and chin-lift, then give a second breath
6. If the chest still doesn't rise, examine the baby's mouth for an obstruction. If

an object is seen, sweep it out with your finger. If the airway seems blocked, perform first aid for a choking infant.

7. Imagine a horizontal line drawn between the baby’s nipples, then place two fingers of one hand just below this line in the center of the baby’s chest.
8. Gently compress the chest about one-third to one-half the depth of the chest.
9. Press about 100 to 120 times a minute.
10. After every 30 chest compressions, give two breaths.
11. Continue CPR until you see signs of life or until emergency medical personnel arrive.

Fainting

Fainting occurs when the blood supply to the brain is momentarily inadequate, causing the victim to lose consciousness for a brief period of time.

Fainting can be minor or a sign of a serious disorder. Therefore, treat loss of consciousness as a medical emergency until the cause is known. If you feel faint:

- Lie or sit down
- If sitting, put your head between your knees

Treatment:

1. Place the fainting victim on his or her back, elevating their legs above their heart level or about 12 inches (30 centimeters).
2. Check the victim’s airway to make sure it is clear, and watch for vomiting.
3. Check for signs of breathing and circulation, and if absent, begin CPR immediately.
4. Call 911 and continue CPR until help arrives or the victim begins to breathe.
5. Restore blood flow to the brain by raising the victim’s legs above the level of their head, and by loosening belts, collars or other constrictive clothing.
6. If the person was injured by falling during fainting, treat any wounds as described in Cuts and Scrapes.

Fever

Fever is one of your body’s reactions to an infection. The average adult oral temperature is 98.6 F (37 C), and the average adult rectal temperature is 1 degree F (about 0.5 degree C) higher. Temperatures vary during the course of the day and are highest around 4 p.m. and lowest around 4 a.m. Young children and infants often run very high temperatures, and in newborns, a subnormal temperature may be a sign of serious illness.

It isn’t necessary to treat fevers below 102 F (38.9 C). For fevers over that, administer aspirin, ibuprofen, or acetaminophen to adults. **Never** give aspirin to children, and do not give ibuprofen to infants younger than 6 months.

Seek immediate medical attention if any of these signs or symptoms accompany a fever:

- Severe headache
- Severe swelling of the throat
- Unusual skin rash
- Unusual eye sensitivity to light
- Stiff neck and pain when the head is bent forward
- Mental confusion
- Persistent vomiting
- Difficulty breathing or chest pain
- Extreme listlessness or irritability
- Abdominal pain or pain when urinating

Today, there are several types of thermometers to choose from. Some quickly use the ear canal, and are especially useful for children and older adults. Most older thermometers can be used rectally, orally or under the arm (axially). Use a digital thermometer rather than the older glass and mercury thermometers because of the potential for mercury exposure or ingestion.

Oral temperatures are taken by placing the thermometer under the person’s tongue, then having them keep their mouth closed for 3 minutes. To take an infant or child’s rectal temperature:

1. Place a dab of petroleum jelly or other lubricant on the thermometer’s bulb.
2. Lay the child down on his or her stomach, and carefully insert the thermometer bulb 1/2 to 1 inch into the rectum.
3. Hold the thermometer in place for 3 minutes, do not let go of the thermometer while it’s inside the child.

Treatment:

1. For infants younger than three months, call the doctor for a rectal temperature in excess of 100.4 F (38 C).
2. For infants older than three months, call the doctor for a rectal temperature in excess of 102 F (38.9 C).
3. For newborns, seek medical attention of the child’s rectal temperature is lower than 97 F (36.1 C).
4. Seek medical attention for children younger than age 2 if they have had a

fever for more than one day.
5. Seek medical attention for children older than age 2 if they have had a fever for more than three days.
6. Seek medical attention for adults if they have a temperature in excess of 103 F (39.4 C) or have had a fever for more than 3 days.

Heart Attack

A heart attack occurs when an artery that supplies blood and oxygen to your heart muscle becomes blocked. Pain from a heart attack generally lasts longer than 15 minutes, however, heart attacks can also be silent, with no signs or symptoms.

The main symptom of a heart attack may be recurrent chest pain that’s triggered by exertion and relieved by rest. Someone having a heart attack may experience any or all of the following symptoms:

- Uncomfortable pressure, fullness or squeezing pain in the center of the chest lasting more than a few minutes
- Pain spreading to the shoulders, neck or arms
- Lightheadedness, fainting, sweating, nausea or shortness of breath

Treatment:

1. For symptoms lasting more than five minutes, call 911.
2. Do not allow the victim to drive himself or herself to an emergency room. It puts the victim and fellow drivers at risk should the symptoms worsen.
3. Have the victim chew a regular-strength aspirin; aspirin can inhibit blood clotting. Don’t give aspirin if the person is allergic to it or has been advised not to take it by their doctor.
4. If the victim has been prescribed nitroglycerin, have them take it as directed.
5. If the victim is unconscious, begin CPR. A 911 dispatcher can advise you how to perform CPR.

Motion Sickness

Motion sickness can strike on any type of transportation, such as car, train or boat. It begins with a slight feeling of uneasiness, and can progress to a cold sweat, dizziness and vomiting.

You can mitigate the amount of motion sickness you might feel if you reserve seats where motion is felt least:

- On a ship, this is the front or middle of the ship, or on an upper deck
- On a plane, seats over the front edge of a wing are best, and once aboard, direct the air vent flow on the person's face
- On a train, seats near the front that are next to a window and face forward are best
- In a car, this is the front passenger seat

Treatment:

1. Before traveling, do not allow the person to drink alcohol, overeat or eat spicy or greasy foods.
2. Have them take an over-the-counter antihistamine, such as meclizine (Antivert, Bonine), or one containing dimenhydrinate (Dramamine) 30 to 60 minutes before traveling; drowsiness is a side effect of these medications.
3. For severe motion sickness, ask a doctor for scopolamine (Transderm Scop), available as a prescription adhesive patch. Apply the patch behind the person's ear several hours before traveling for 72 hours of protection from motion sickness. Advise the doctor if the person has: asthma, glaucoma or urine retention.
4. While traveling, focus on the horizon or on a distant, stationary point.
5. Never read while traveling.
6. Don't sit near smokers or allow the person to smoke.
7. Keep the victim's head still, and rest it against a seat back.
8. Have the person eat dry crackers or drink a carbonated beverage to settle their stomach.

Seizures

Most seizure victims suffer from epilepsy. Seizures caused by other conditions, such as a head injury, pregnancy or diabetes, are more serious and require medical attention. Young children often have seizures as the result of a high fever; these are called febrile seizures.

Treatment:

1. Place the victim on the floor and clear hard or sharp objects away from them
2. Check for a medical ID bracelet to see what conditions the victim has
3. Note the time of the beginning and end of the seizure. Seizures lasting longer than five minutes are treated differently than shorter ones
4. Loosen tight clothing around the victim's neck, such as ties or collars
5. Place something soft under the victim's head, such as a pillow or rolled-up clothing

6. **Never** put anything in the victim’s mouth, it can cause them to choke. Seizure victims do not swallow their tongues
7. If the victim drools or vomits, roll them onto their left side to drain these fluids
8. If at any time during the seizure, the victim stops breathing, perform CPR.
9. Stay with the victim until they wake up.

Stroke

A stroke occurs when either there is bleeding into the brain, or the normal flow of blood to the brain is blocked. Brain cells begin dying within minutes of being deprived of essential nutrients. Seek medical attention immediately, the sooner treatment is given, the more likely that damage can be minimized. Every second counts.

Risk factors for stroke include high blood pressure, having had a previous stroke, smoking, diabetes and heart disease. The risk of stroke increases as you age.

Symptoms of stroke include:

- Sudden numbness or weakness in the face, or arm or leg on one side of your body
- Sudden dimness, blurring or loss of vision, particularly in one eye
- Loss of speech or trouble speaking or understanding
- Sudden, severe headache with no apparent cause
- Dizziness, unsteadiness or a sudden fall, especially if accompanied by any of the symptoms above

Injuries

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Injuries

Amputation

Many parts of the body can become amputated, from fingers to arms and legs, to even the penis. With amputations, time is of the essence. The quicker the victim receives medical attention, the more likely it is that the amputated part can be reattached.

Treatment:

1. Because there is a lot of blood with an amputation, wear personal protective equipment if available.
2. Call 911, and while waiting for emergency medical personnel, make sure the victim is breathing. If not, begin CPR.
3. Control bleeding on the stump by using direct pressure, elevate the limb above the heart if possible.
4. **Do not** use a tourniquet unless medical care will be delayed for several hours.
5. Collect the amputated part and put it into a plastic bag, then place the bag on top of ice. **Do not** put the amputation directly on ice.
6. **Do not** wash the amputation or put it in water.
7. Watch for signs of shock and treat accordingly.
8. Do not let the victim eat or drink anything.

Black Eye

A black eye is caused by bleeding beneath the skin around the eye. If the area around both eyes is bruised (raccoon eyes), this can indicate a more serious injury, such as skull fracture.

Although most black eye injuries aren't serious, they often accompany such serious injuries as bleeding within the eye, called a hyphema, which can reduce vision, damage the cornea, or lead to abnormally high pressure inside the eyeball (glaucoma).

Treatment

1. Check to see if there is any blood within the white and colored parts of the eye; if there is, seek medical attention immediately.
2. If the person experiences vision problems such as double vision or blurring,

severe pain, or bleeding in the eye or from the nose, seek medical attention immediately.

3. As soon as possible after the injury use gentle pressure to apply a cold pack or a cloth filled with ice to the area around the eye, taking care not to press on the eye itself. Continue using ice or cold packs for 24 to 48 hours.

Blisters

Blisters are most commonly caused by friction or burns. Don’t puncture a blister unless it’s extremely painful or prevents you from walking or using one of your hands. Unbroken skin over a blister provides a natural barrier to bacteria, and decreases the risk of infection.

To prevent blisters, use gloves, socks, or a bandage over the area being rubbed. Ill-fitting shoes are often a cause of blisters. When shoe shopping remember to:

- Shop in the middle of the day when your feet will be slightly swollen
- Wear the same socks that you’ll wear with the shoes
- Ask the shoe salesman to measure your feet; shoe sizes change throughout adulthood
- If your feet differ in size, buy the larger size
- Buy flexible, but supportive, shoes with cushioned insoles
- Make sure your shoes leave enough room for you to comfortably wiggle your toes
- Avoid shoes having seams over the toe area; they can irritate bunions or hammertoes

Most blisters can be left intact, however, if the pain is extreme, they can be drained of fluid while leaving the overlying skin intact. Persons having poor circulation or diabetes should call their doctor before attempting this procedure.

Treatment

1. To leave the blister intact, cover it with either an adhesive bandage, or a porous, plastic-coated gauze pad that absorbs moisture and allows the blister to breathe.
2. To drain the blister, wash your hands and the blister with soap and warm water, then swab the blister with iodine or rubbing alcohol.
3. Sterilize a clean, sharp needle with rubbing alcohol, then puncture the blister aiming for several spots along its edge.
4. Allow the fluid drain while leaving the overlying skin in place.
5. Once all the fluid has drained out, apply an antibiotic ointment and cover

with a bandage or gauze pad.

6. After several days, use tweezers and scissors sterilized with rubbing alcohol to cut away all the dead skin, apply more ointment and a bandage.
7. If you see any signs of infection, such as redness, pus, increasing pain or warm skin, call your doctor.

Bruises

Bruises form when a blow breaks small blood vessels beneath the skin, allowing blood to leak out into the tissues. The trapped blood appears black-and-blue, accompanied sometimes by tiny red dots or splotches.

Bruises that form for no reason, without there having been a blow, may indicate a more serious problem, such as a blood-clotting problem or blood-related disease. Bruises accompanied by persistent pain or headache also may indicate a more serious underlying illness, and require medical attention.

Treatment:

1. Elevate the bruised area and apply ice or a cold pack several times a day for a day or two after the injury.
2. Rest the bruised area, if possible, and take a pain reliever (aspirin, ibuprofen, naproxen or acetaminophen) if needed.

Shock

Shock can result from trauma, heatstroke, allergic reactions, severe infection, poisoning or other causes. Caused by below normal blood pressure, shock victims require immediate medical attention. Symptoms of shock include:

- Cool, clammy skin that appears pale or gray
- Weak and rapid pulse accompanied by either slow and shall breathing or hyperventilation (rapid or deep breathing).
- Dull looking eyes occasionally with dilated pupils
- Unconsciousness, or if conscious, the victim may feel faint, weak or confused. Shock victims can also become overly excited and anxious

Treatment:

1. After calling for medical assistance, lay the person on their back with their feet higher than their head if possible.
2. If the victim is not breathing, begin CPR immediately.
3. Loosen belts and tight clothing and keep the victim warm.

4. Give nothing by mouth, even if the victim complains of thirst.
5. Turn the person on their side to prevent choking if vomiting or bleeding from the mouth.

Sprain

Ligaments are tough, elastic-like bands that attach to bones and hold joints in place. A sprain is an injury to a ligament caused by excessive stretching. Ligaments can also have tears or be completely torn apart. Ankle and knee sprains occur most often.

Sprained ligaments swell rapidly and are painful, generally, the greater the pain, the more severe the injury. Inadequate or delayed treatment of a sprain can result in long-term joint instability or chronic pain.

Most sprains can be treated as described below. Seek medical attention if:

- A popping sound accompanied the joint being injured
- The victim can’t use the joint, or put any weight on it
- The site of the injury is red and hot, and the person runs a fever greater than 100 F (37.8 C).
- The person does not improve after two or three days

Treatment:

1. Do not use the injured joint, use splits or crutches.
2. Rest the injured limb, but you can still exercise other muscles to prevent de-conditioning.
3. Apply ice or a cold pack to the injury as soon as possible to prevent swelling. Be careful not to keep ice on an area for too long, this can cause tissue damage.
4. Compress the injured area with an elastic bandage or wrap.
5. Elevate the injured limb whenever possible to limit swelling.
6. For pain, administer over-the-counter pain relievers, such as aspirin, ibuprofen or acetaminophen.
7. When able, begin using the injured area.

Nose

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Nose

Nosebleeds

Nosebleeds are common, especially in young children. In children and adults, nosebleeds usually originate from the septum, the divider separating your nasal chambers. In middle-aged and older adults, nosebleeds can originate deeper in the nose, and may be caused by hardened arteries or high blood pressure. These type of nosebleeds are difficult to stop and require a specialist's help.

People experiencing frequent nosebleeds should make an appointment with their doctor, who can cauterize the bleeding blood vessel with an electric current, silver nitrate or a laser. The doctor can also pack the nose with special gauze or an inflatable latex balloon to put pressure on the bleeding blood vessel.

People experiencing frequent nosebleeds who are taking blood thinners, such as aspirin or warfarin (Coumadin) should consult their doctor on the dosage. People using supplemental oxygen administered through a nasal tube (cannula) may be at increased risk of nosebleeds, and should apply a water-based lubricant to their nostrils and increase the humidity in their home.

Treatment:

1. Have the person sit upright and lean forward. Sitting upright reduces the blood pressure in the veins of the nose, which discourages further bleeding. Sitting forward helps avoid swallowing blood, which can irritate the stomach.
2. Using your thumb and index finger, pinch the victim's nose closed for 5 to 10 minutes and have them breathe through their mouth. Pinching the nose creates direct pressure on the bleeding point on the nasal septum.
3. For several hours after the bleeding has stopped, do not allow the victim to bend down, and have them keep their head higher than the level of their heart.
4. To prevent the bleeding from starting again after it has stopped, do not allow the victim to pick or blow their nose
5. If re-bleeding occurs, have the victim blow their nose forcefully to clear out any blood clots, then spray both sides of the nose with a decongestant nasal spray containing oxymetazoline (Afrin, Neo-Synephrine, others).
6. Pinch the nose again, and if bleeding continues, seek medical attention.
7. Seek medical attention if a nosebleed lasts longer than 20 minutes.
8. If the nosebleed follows an accident, fall or injury to the head, including a punch to the face that may have broken the nose, seek medical attention

immediately.

Foreign Object In Nose

While small children often place foreign objects in their noses, adults can also have a foreign object become lodged in their noses.

Treatment:
1. Have the victim blow their nose to try to free the object. If only one nostril is affected, have them close the other nostril before blowing. Do not allow the victim to blow hard or repeatedly.
2. If the object is visible, gently try to remove it with tweezers
3. For objects that aren’t visible, never probe with a cotton swab or other tool, instead seek medical attention.
4. Do not have the victim try to inhale the object. Have them breathe through their mouth until the object can be removed by medical personnel.
5. If the object cannot be removed, seek medical attention immediately.

Poisoning

Contents

Poisoning

Carbon Monoxide

Carbon Monoxide (CO) binds more strongly to red blood cells than does oxygen. Victims of carbon monixide poisoning are therefore starved of oxygen need for vital organs such as the heart and brain. Unlike other conditions that decrease oxygen in the blood, victims of carbon monoxide poisoning are not pale or blue (cyanotic), but appear bright pink or flushed red.

The best defense against carbon monoxide poisoning is to have a carbon monoxide detector in your home. Once poisoned, the only treatment is to replace the carbon monoxide with oxygen in the victim's blood. This is done by having the victim breathe high concentrations of oxygen, and in the worst cases, victims must be placed in barometric chambers where oxygen is delivered within a high-pressure environment.

Carbon monoxide can leak from any of these:
- Gas stoves
- Gas water heaters
- Gas clothes dryers
- Fireplaces or firepits
- Wood stoves
- Gas or charcoal barbecues
- Gas or oil space heaters
- Smudge pots
- Gas or diesel generators
- Gas or diesel cars and trucks
- Motorboats
- Motorcycles
- Gas-powered lawn equipment

Symptoms of carbon monoxide poisoning include:
- Headache and confusion
- Shortness of breath
- Weakness and fatigue
- Dizziness and unstable gait
- Nausea and vomiting
- Unconsciousness

Treatment:

1. While waiting for emergency medical attention, get the victim into fresh air.
2. If the victim isn’t breathing, start CPR.
3. Have fire department personnel or other professionals find the source of the carbon monoxide and fix it.

Food

All foods contain small amounts of naturally occurring bacteria, however, improper cooking, handling or storage can result in the bacteria multiplying to large enough numbers to cause illness.

Food can also contain parasites, viruses, toxins and chemicals, however, this type of contamination is much less common. Infants, young children, the elderly and people with compromised immune systems are most at risk from food poisoning. Symptoms of food poisoning generally include diarrhea, nausea, abdominal pain and vomiting.

Botulism is a potentially fatal food poisoning caused by a toxin formed by certain spores in food. It is most often found in home-canned foods, especially green beans and tomatoes, and symptoms usually begin 12 to 36 hours after eating the contaminated food. Symptoms include: headache, blurred vision, muscle weakness and paralysis, urinary retention, difficulty breathing and dry mouth. Seek medical attention immediately if botulism is suspected.

Treatment:

1. Seek medical attention for symptoms lasting longer than 3 days or if blood appears in the victim’s stools.
2. If watery diarrhea turns very bloody, seek medical attention immediately.
3. Rest and drink plenty of liquids.
4. Don’t use anti-diarrheal medications because they may slow elimination of bacteria from your system.

Injested Poisons

Symptoms of poisoning are often mistaken as seizures, alcohol intoxication, stroke or an insulin reaction. If you suspect poisoning, in the United States, call the Poison Control Center at 800-222-1222. Other countries around the world have their own poison control numbers.

When calling a poison control center, provide information about the person’s symptoms and, if possible, what he or she ingested, how much and when. Prior to 2003, treatment of suspected poisoning included administering ipecac syrup to induce vomiting, however that year the American Academy of Pediatrics recommended that parents discontinue using ipecac, saying that it can do more harm than good.

Signs to look for in poisoning include:

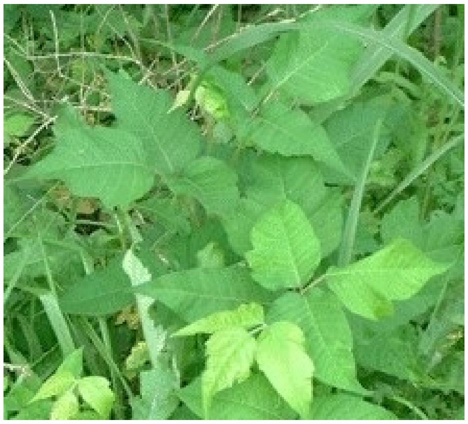
- Burns or redness around the victim’s mouth and lips
- The victim’s breath smells like chemicals, such as gasoline or paint thinner
- Burns, stains or odors on the victim’s body or clothing, or on objects surrounding the victim, such as furniture, carpeting or floor
- Empty medicine bottles or pills scattered near the victim.
- Vomiting, difficulty breathing, sleepiness, or confusion.

Treatment:

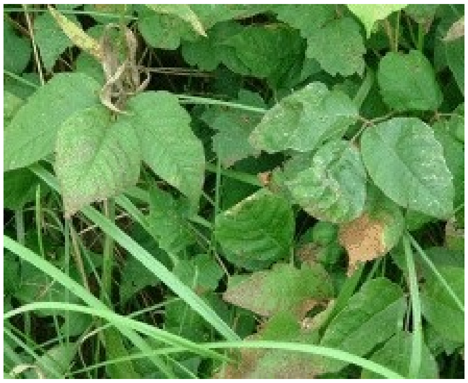
1. If the victim has been exposed to poisonous fumes, such as carbon monoxide, get them into fresh air immediately.
2. If the person swallowed the poison, remove anything remaining in their mouth.
3. If you can locate the suspected poison’s container, and there are instructions for accidental poisoning on the label, follow those instructions.
4. If you can’t locate the container, there are no instructions, you can’t identify the poison, or if the poison is medication, call the Poison Control Center at 800-222-1222.
5. Follow any treatment instructions given by the Poison Control Center.
6. Be sure to take the poison container or any pill bottles with you to the hospital.
7. Seek medical attention immediately if the victim is drowsy, unconscious, having difficulty breathing or has stopped breathing.
8. If the person is uncontrollably restless or agitated, or having seizures, seek medical attention immediately.

Plant

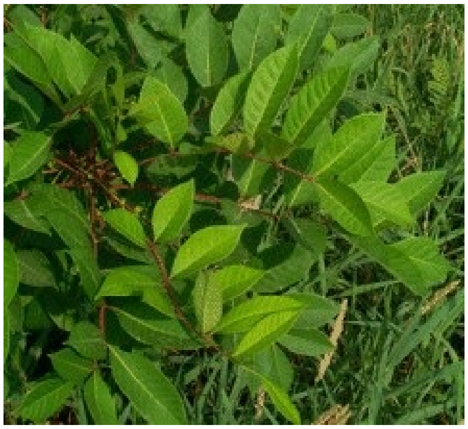
More than 60 plans can cause allergic reactions, but poison ivy, poison oak and poison sumac are by far the most common. An allergic reaction can begin between 6 and 72 hours after exposure.



Poison Ivy



Poison Oak



Poison Sumac

Signs of plant poisoning include:

- Rash
- Itching
- Redness
- Blisters
- Swelling

Treatment:

1. If you know you have been exposed, immediately clean the exposed area with soap and cold water to remove the plant's oil resin, or use a liberal amount of rubbing alcohol (isopropyl) then rinse. Too little rubbing alcohol will only spread the resin.
2. Have the victim soak in a lukewarm bath sprinkled with one to two cups of colloidal oatmeal.
3. Apply calamine lotion or zinc oxide.
4. Apply a paste made from 1 teaspoon water and 3 teaspoons baking soda.
5. Apply an over-the-counter corticosteroid ointment and take an oral antihistamine, such as Benadryl.
6. For a severe reaction, take a physician-prescribed oral corticosteroid such as Prednisone.

Stomach

Contents

Stomach

Food Poisoning

All foods contain small amounts of naturally occurring bacteria, however, improper cooking, handling or storage can result in the bacteria multiplying to large enough numbers to cause illness.

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Botulism is a potentially fatal food poisoning caused by a toxin formed by certain spores in food. It is most often found in home-canned foods, especially green beans and tomatoes, and symptoms usually begin 12 to 36 hours after eating the contaminated food. Symptoms include: headache, blurred vision, muscle weakness and paralysis, urinary retention, difficulty breathing and dry mouth. Seek medical attention immediately if botulism is suspected.

Treatment:

1. Seek medical attention for symptoms lasting longer than 3 days or if blood appears in the victim’s stools.
2. If watery diarrhea turns very bloody, seek medical attention immediately.
3. Rest and drink plenty of liquids.
4. Don’t use anti-diarrheal medications because they may slow elimination of bacteria from your system.

Gastroenteritis

Gastroenteritis is an inflammation of the stomach or intestines. It can be caused by: viruses, bacteria, parasites, medications, or even reaction to a new food. Infants who are breast-fed may react to changes in their mothers’ diets.

Symptoms of gastroenteritis can last for up to a week and include:

- Nausea or vomiting
- Diarrhea
- Abdominal cramps

- Bloating
- Low-grade fever

Treatment for Adults:

1. Do not allow the victim to eat or drink for several hours in order to let their stomach settle.
2. Have them drink plenty of liquids, such as Gatorade or water, to prevent dehydration.
3. Gradually introduce bland, easy-to-digest foods, such as soda crackers, toast, gelatin, bananas, rice, applesauce and chicken.
4. Discontinue food if the nausea returns, and have the victim avoid milk and dairy products, caffeine, alcohol, nicotine, and fatty or highly seasoned foods for a few days.
5. Administer aspirin, ibuprofen, naproxen or acetaminophen if needed for pain.
6. Encourage the victim to rest, gastroenteritis and dehydration cause weakness and exhaustion.
7. Seek medical attention if vomiting or diarrhea lasts for more than two days, or if extreme abdominal pain develops.
8. Seek medical attention if diarrhea turns bloody, or if the victim runs a fever of 101 F (38.3 C) or higher.
9. If the victim becomes confused, lightheaded or faints upon standing, seek medical attention immediately.

Treatment for Children

1. For infants, allow their stomach to rest for 30 to 60 minutes, then offer small amounts of liquid. For breast-feeding infants, let them nurse, and for bottle-fed infants, offer a small amount of an oral dehydration formula such as Pedialyte and Infalyte, or regular formula.
2. For young children, allow them to rest.
3. When their vomiting stops, offer small amounts of an oral rehydration solution, such as Pedialyte. Do not offer water, which is not absorbed well in children with gastroenteritis, and therefore won’t adequately replace lost fluids. Also, do not give apple juice or milk; they can make diarrhea worse.
4. Gradually introduce bland, easy-to-digest foods, such as toast, rice, bananas and potatoes. Do not give dairy products or sugary foods, such as ice cream, sodas and candy. These can also make diarrhea worse.
5. Administer ibuprofen or acetaminophen for relief of discomfort. Never give a child aspirin.
6. Get medical attention immediately if the child becomes unusually drowsy,

vomits blood or has bloody diarrhea.

7. Get medical attention immediately if the child shows signs of dehydration, such as: dry mouth and skin, marked thirst, sunken eyes, crying without tears, the soft spot on the top of an infant’s head becomes sunken, and diapers that remain dry for more than eight hours.

8. Seek medical attention if a child younger than age 2 has a fever for more than one day, or if a child age 2 or older has a fever for more than three days.

Teeth

Contents

Teeth

Toothache

For most children and adults, tooth decay is the primary cause of toothaches. Bacteria that live in the mouth thrive on the sugars and starches we eat, and form a sticky plaque that clings to the surface of teeth.

Acids produced by these bacteria can eat through the enamel, the hard, white coating on the outside of teeth, creating a cavity. The first symptom of a cavity may be pain when eating something sweet, very cold or very hot. Seek medical attention if symptoms of an infection appear. These include:

- Gum redness
- Swelling
- Pain when biting
- A foul-tasting discharge
- Fever
- Trouble breathing or swallowing

Treatment:

1. Until the person can see their dentist, have them rinse their mouth with warm water.
2. Use dental floss to remove any food particles wedged between teeth.
3. Take an over-the-counter pain reliever such as aspirin, ibuprofen, naproxen or acetaminophen to dull the ache.
4. Apply an over-the-counter antiseptic containing benzocaine directly to the tooth and gum to temporarily relieve pain. Oil of cloves (eugenol) can also be used, but do not place aspirin or another painkiller directly against gums, they can burn the gum tissue.

Tooth Loss

If a tooth is knocked out, it can sometimes be re-implanted if the treatment steps below are followed. For those participating in contact sports, a dentist can create a mouth guard that prevents tooth loss.

Treatment:

1. Seek medical attention from a dentist or emergency room immediately.
2. Pick up the tooth without touching the roots.

3. Don’t brush or scrape it to remove debris, this can damage the root.
4. Gently rinse the tooth in a bowl of tap water, do not hold it under running water.
5. Try to replace the tooth in its socket, have the victim gently bite down on a gauze pad or moistened tea bag. Hold the tooth in place until the person can see a dentist.
6. If the tooth can’t be replaced in the socket, place it in a small amount of milk or warm saltwater (1/4 teaspoon salt to 1 quart water).

Women

Contents

Women

Childbirth

Childbirth can be categorized by 3 stages of labor. In the first stage, the mouth of the uterus, or cervix, shortens and dilates to approximately 10 cm. The membranes may rupture causing a blood stained “show”, and contractions begin though they may be irregular and sporadic at first. The second stage begins when the cervix is fully dilated and the mother proceeds with pushing the baby out. This stage ends with the expulsion of the baby. In the third stage , the placenta detaches from the uterine wall and is expelled through the birth canal, usually within 15 minutes of the baby being born.

Human infants have the biggest head and shoulders relative to the size of a woman’s pelvis of any species. In order for a baby to pass through the bony ring of the pelvis and be successfully delivered, several distinct steps have to occur:

1. The baby’s head must descend through the bony ring of the pelvis
2. The head should rotate so that the baby’s face is towards the mother’s rectum
3. The head must pass out the birth canal
4. The baby’s head must then turn 45 degrees to align with its shoulders
5. The shoulders repeat the corkscrew movements of the head.

A problem in any of these steps, such as malpresentation of the fetal head, failure of descent of the head through the pelvis, poor uterine contraction strength, or a big baby and a small pelvis, can result in serious complications. Hemorrhage is the biggest killer of birthing mothers, and infection remains a problem especially in developing countries. Risk factors for babies include not receiving sufficient oxygen to the brain and other vital organs during labor, which has been minimized by the use of modern monitoring devices, birth injuries caused by the use of instruments and infection.

The safest way to deliver a baby is by professionals in a hospital. The time to go to the hospital is when the mother feels pain and pressure, and especially when her water breaks. When it is not possible to get to a hospital, or if emergency medical personnel haven’t arrived yet, the steps below describe how to successfully deliver a baby.

Treatment:

1. Lay the mother down on top of a clean sheet on the floor.

2. Place a pillow under her hips. If she’s more comfortable on her side, the mother can lay that way until just before delivery.
3. Have someone sit behind the mother and prop up her back during contractions.
4. Wash your hands before touching the baby and try not to touch anything that will contaminate them.
5. Check for crowning, when the baby’s head becomes visible.
6. If a membrane (the amniotic sac) covers the baby’s head, pinch and twist the membrane to break it and release the amniotic fluid.
7. Never try to hold the baby’s head back, guide it slowly from the birth canal.
8. Allow the baby to turn slowly to the side on its own.
9. Once the baby’s head is entirely out, clean baby’s nose and mouth with a bulb syringe if you have one, or use a clean towel to wipe away fluid and membrane from the baby’s airway.
10. If the umbilical cord is wrapped around the baby’s neck, try to slip it over the baby’s head. If you can’t deliver the baby anyway.
11. Guide the baby’s top shoulder out. The lower shoulder will quickly follow along with the rest of the baby.
12. Wrap the baby in a clean towel or blanket to keep him or her warm.
13. Within ten or fifteen minutes, the placenta will naturally deliver. Do not pull on the umbilical cord.
14. If help is on the way or you plan on taking both mother and newborn to a hospital, do not cut the umbilical cord. Instead, keep the cord and placental level with the baby. If you must cut the cord, clamp it tightly in two places, then make the cut between the two clamps. The remaining umbilical stub remains for up to 2-3 weeks as it dries and then falls off.

Pregnancy Emergencies

If a woman experiences any of the following symptoms during her pregnancy, she should seek medical attention:

- Vaginal bleeding
- Cramps in the lower abdomen
- Swelling of her face or fingers
- Severe continuous headache
- Dizziness or fainting
- Blurring of vision or seeing spots
- Uncontrollable vomiting

Treatment:

1. If a woman is experiencing severe vaginal bleeding or abdominal pain, call 911 immediately.
2. Have the victim lie on her left side, and keep her quiet and warm.
3. Place a sanitary napkin or a clean pad over the opening ov the vagina.
4. Save all blood-soaked pads and any tissues that are passed so they can be examined by a physician.
5. Seek medical attention for any injuries to a pregnant woman's lower abdomen.

Worldwide Emergency Numbers

Contents

Worldwide Emergency Numbers

P = Police, A = Ambulance, F = Fire

North America

Canada
P, A, F: 911
Greenland
P, A, F: Call local police
Mexico
P, A, F: 066, 060, 080
Saint Pierre and Miquelon
P: 17 A:15 F:18
United States of America
P, A, F: 911

Central America and the Caribbean

Barbados
P: 211 A: 511 F: 311
Cayman Islands
P, A, F: 911
Costa Rica
P, A, F: 911
Dominican Republic
P, A, F: 911
El Salvador
P, A, F: 911
Guatemala
P: 110 A: 120 F: 123
Honduras
P, A, F: 199
Jamaica
P: 119 A, F: 110
Nicaragua
P, A, F: 118

Panama
P, A, F: 911
Trinidad and Tobago
P: 999 A, F: 990

South America

Argentina
P: 101 A: 107 F: 100, Buenos Aires and provinces, Santa Fe, Rosario, Salta 911.
Bolivia
P: 110 A: 118
Brazil
P: 190 A: 192 F: 193
Chile
P: 133 A: 131 F: 132
Colombia
P, A, F: 112, 123
Guyana
P: 911 A: 913 F: 912
Paraguay
P, A, F: 911
Peru
P: 105 F:116
Suriname
P, A, F: 115
Uruguay
P, A, F: 911
Venezuela
P, A, F: 171

Asia

Bahrain
P, A, F: 999
Bangladesh
P, A, F: 999
Hong Kong
P, A, F: 999, 112 from mobile phones

India
P: 100 A: 102,108,104 F: 101
Indonesia
P: 110 A: 118, 119 F: 112 for mobile phones
Iran
P: 110 A: 115 F: 112 for mobile phones
Israel
P: 100 A: 101 F: 102 112 for mobile phones
Japan
P: 110 A, F: 119
Kuwait
P, A, F: 777
Lebanon
P: 112 A: 140 F: 175
Macau
P, A, F: 999, 318
Malaysia
P, A, F: 999
Maldives
P, A, F: 102 119 for mobile phones
Mongolia
P: 102 A: 103 F: 101
Myanmar
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Nepal
P: 100,103 F:101
Oman
P, A, F: 9999
Pakistan
P: 15/1122 A: 115 F: 16 112 for mobile phones
People's Republic of China
P: 110 A: 120 F: 119
Philippines
P, A, F: 117 112 and 911 from mobile phones
Qatar
P, A, F: 999
Republic of China (Taiwan)
P: 110 A, F: 119
Republic of Korea

P: 112 A, F: 119
Saudi Arabia
P: 999 A: 997 F: 998
Singapore
P: 999 A, F: 995 112 or 911 for mobile phones
Sri Lanka
P: 119, 118 A: 110 F: 111
Thailand
P: 191 A: 1669 F: 199
United Arab Emirates
P: 999 ,112 A: 998, 999 F: 997
Vietnam
P: 113 A: 115 F: 114

Europe

Albania
P: 19 A: 17 F:18
Austria
P, A, F: 112
Belarus
P: 102 A: 103 F: 101 112 for mobile phones
Belgium
P, A, F: 112
Bosnia and Herzegovina
P: 122 A: 124 F: 123 112, 911 for mobile phones
Bulgaria
P, A, F: 112
Croatia
P: 92 A, F: 112
Cyprus
P, A, F: 112
Czech Republic
P, A, F: 112
Denmark
P, A, F: 112
Estonia
P, A, F: 112
Faroe Islands

P, A, F: 112
Finland
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France
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Germany
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Greece
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Hungary
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Iceland
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Republic of Ireland
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Italy
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Kazakhstan
P, A, F: 112
Kosovo
P, A, F: 911
Latvia
P, A, F: 112
Lithuania
P, A, F: 112
Luxembourg
P, A, F: 112
Republic of Macedonia
P, A, F: 112
Malta
P, A, F: 112
Moldova
P: 902 A: 903 F: 112 being 2010
Monaco
P, A, F: 112
Montenegro
P, A, F: 112
Netherlands
P, A, F: 112

Norway
P: 112 A: 113 F: 110
Poland
P, A, F: 112
Portugal
P, A, F: 112
Romania
P, A, F: 112
Russia
P, A, F: 112
San Marino
P: 113 A: 118 F: 115
Serbia
P, A, F: 112
Slovakia
P, A, F: 112
Slovenia
P: 113 A, F: 112
Spain
P, A, F: 112
Sweden
P, A, F: 112
Switzerland
P, A, F: 112
Turkey
P: 155 A: 112 F: 110
Ukraine
P, A, F: 112
United Kingdom
P, A, F: 112, 999

Oceania

Australia
P, A. F: 000 112, 911 for mobile phones
Fiji
P, A: 911 F: 9170
New Zealand
P, A, F: 111 112, 911 for mobile phones

Solomon Islands
P, A. F: 999
Vanuatu
P, A. F: 112

Africa

Chad
P: 17 F: 18
Djibouti
P: 17 F: 18
Egypt
P: 122 A: 123 F: 180
Ghana
P, A, F: 999 or P: 191 A: 193 F: 192 **Mali**
P: 17 A: 15 F: 18
Morocco City
P: 177, 19 A: 15 F: 15
Nigeria
P, A, F: 199
Rwanda
P, A, F: 112
Sierra Leone
P: 019 A: 999
South Africa
P: 10111 A: 10177 F: 112 for mobile phones
Sudan
P, A, F: 999
Tunisia
P: 197 A: 190 F: 198
Uganda
P, A, F: 999
Zambia
P: 999 A: 991 F: 993 112 for mobile phones
Zimbabwe
P, A, F: 999 P: 995 A: 994 F: 993

Poison Control Numbers

Worldwide Poison Control Numbers

Austria
Vienna Wien
Vergiftungsinformationszentrale (Poisons Information Centre)
Telephone: +43 1 40 400 2222

Belarus
Minsk
The Belarus Republican Poisons Centre
Emergency telephone: +375 (0)17 201 9158

Belgium
Brussels Bruxelles
Centre Anti-Poisons/Antigifcentrum
Emergency telephone: +32 70 245 245

Bulgaria
Sofia
National Toxicological Information Centre
Emergency telephone: +359 2 9154 409

Croatia
Zagreb
Poisons Control Centre
Emergency telephone: +385 1 234 8342

Czech Republic
Prague Praha
Poisons Information Centre
Emergency telephone: +42 2 2491 9293 or +42 2 2491 5402

Denmark
Copenhagen
Poison Information Centre
Emergency telephone, public: +45 82 12 12 12
Emergency telephone, health sector: +45 35 31 55 55

Finland
Helsinki
Poison Information Centre

Emergency telephone: +358 9 471 977

France
Angers
Centre Antipoison et de Toxicovigilance de Angers
Emergency telephone: +33 2 4148 2121

Bordeaux
Centre Antipoison
Emergency telephone: +33 5 5696 4080

Grenoble
Centre de Toxicovigilance et de Toxicologie Clinique de Grenoble
Telephone: +33 4 76 76 56 46 (heures et jours ouvrables)

Lille
Centre Antipoison - Toxicovigilance
Emergency telephone: 0 825 812 822 (France) or +33 3 2016 0824, +33 3 20 44 44 44(international)

Lyon
Centre Antipoison
Emergency telephone: +33 4 72 11 69 11

Marseille
Centre Antipoison et de Toxicovigilance de Marseille
Emergency telephone: +33 4 91 75 25 25

Nancy
Centre Antipoison et de Toxicovigilance de Nancy
Emergency telephone: +33 3 8332 3636

Paris
Centre Antipoison et de Toxicovigilance de Paris
Emergency telephone: +33 1 40 05 48 48

Reims
Centre de Toxicovigilance et de Toxicologie Clinique de Reims
Telephone: +33 (0)3 2606 0708 (heures et jours ouvrables)

Rennes
Centre Antipoison et de Toxicovigilance de Rennes
Emergency telephone: +33 2 99 59 22 22

Rouen
Centre de Toxicovigilance et de Toxicologie Clinique de Rouen
Telephone: +33 2 3588 4400 (heures et jours ouvrables)

Strasbourg
Centre Antipoison et de Toxicovigilance
Emergency telephone: +33 3 88 37 37 37

Toulouse
Centre Antipoisons et de Toxicovigilance de Toulouse
Emergency telephone: +33 5 61 77 74 47

Georgia
Tbilisi
National Toxicology Information Advisory Center of Georgia
Telephone: +995 99 533320

Germany
Berlin
Giftberatung Virchow-Klinikum, Medizinische Fakultat der Humboldt - Universitat zu Berlin
Telephone: +49 30 450 653565

Giftnotruf Berlin
Berliner Betrieb fur Zentrale Gesundheitliche Aufgaben
Emergency telephone: +49 30 19240

Bonn
Informationszentrale gegen Vergiftungen
Emergency telephone: +49 228 287 3211

Erfurt
Gemeinsames Giftinformationzentrum der Lander Mecklenburg-Vorpommern, Sachsen-Anhalt und Thuringen
Emergency telephone: +49 361 730 730

Freiburg
Vergiftungs-Informations-Zentrale
Emergency telephone: +49 761 19240

Gottingen
Giftinformationszentrum-Nord
Emergency telephone: +49 551 19240

Homburg/Saar
Informations und Beratungszentrum fur Vergiftungsfalle
Emergency telephone: +49 6841 19240

Mainz
Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen der Lander Rheinland-Pfalz und Hessen, Universitatsklinikum
Emergency telephone: +49 6131 232466

Munich Munchen
Toxikologische Abteilung der II Medizinische Klinik und Poliklinik, rechts der Isar der Technischen Universitat
Emergency telephone: +49 89 19240

Nurenberg Nurnberg
Giftnotruf Nurnberg, Medizinische Klinik 2 Klinikum Nurnberg
Emergency telephone: +49 911 3892665
Greece
Athens Athinai
Poisons Information Centre
Emergency telephone: +30 10 779 3777

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Department of Forensic Medicine & Toxicology
Aristotle University of Thessaloniki, Medical Faculty
Telephone: +30 231 0999221
Hungary
Budapest
Fodor Jozsef Orszagos Kozegeszsegugyi Kozpont (Jozsef Fodor National Center

of Public Health)
Emergency telephone number: +36 12 15 37 33, +36 80 20 11 99

Iceland
Reykjavik
Iceland Poisons Information Centre
Emergency telephone: +354 525 111, +354 543 2222

Ireland, Republic of
Dublin
National Poisons Information Centre
Emergency telephone: +353 1 8379964

Israel
Haifa
Israel Poisons Information Centre
Emergency telephone: +972 4 854 1900

Italy
Bergamo
Centro Antiveleni di Bergamo
Telephone: +39 03 526 9469

Bologna
Centro Antiveleni
Emergency telephone: +39 051 647 8955

Catania
Centro Antiveleni
Emergency telephone: +39 095 25 4409

Cesena
Centro Antiveleni
Emergency telephone: +39 054 735 2612

Chieti
Centro Antiveleni
Emergency telephone: +39 87 134 5362

Florence Firenze
Centro Antiveleni Emergency telephone: +39 055 794 6238

Genoa Genova
Centro Antiveleni
Emergency telephone: +39 10 352 808

La Spezia
Centro Antiveleni
Telephone: +39 18 753 3296

Lecce
Centro Antiveleni
Emergency telephone: +39 0832 68 5374

Milan Milano
Centro Antiveleni
Emergency telephone: +39 02 6610 1029

Naples Napoli
Centro Antiveleni
Emergency telephone: +39 081 45 9802

Pavia
Centro Antiveleni
Emergency telephone: +39 03 822 4444

Pordenone
Centro Antiveleni
Emergency telephone: +39 0434 399335

Reggio Calabria
Centro Antiveleni
Emergency telephone: +39 96 581 1624

Rome Roma
Centro Antiveleni (Poisons Centre)
Emergency telephone: +39 06 305 4343

Centre Antiveleni
Dipartimento di Scienze Anestesiologiche, Medicina Critica e Terapia del dolore

Emergency telephone: +39 06 49 06 63

Torino
Centro Antiveleni
Emergency telephone: +39 011 663 7637

Trieste
Centro Antiveleni
Emergency telephone: +39 04 0378 5373

Kazakhstan
Almaty
Republican Toxicology Centre
Telephone: +7 3272 927055, 925868

Shimkent
Regional (Oblast) Toxicology and Hyperbaric Oxygenation Centre
Telephone: +7 3252 571397 (hotline) or +7 3252 571424

Latvia
Riga
Latvian Poisons Information Centre
Emergency telephone: +371 704 2468

Lithuania
Vilnius
Poisons Control and Information Bureau
Emergency telephone: +370 2 36 20 52, +370 2 36 20 92

Netherlands
Bilthoven
National Poisons Control Centre This service is only available to health professionals
Emergency telephone: +31 30 274 88 88

Norway
Oslo
Poisons Information National Poisons Control Centre
Emergency telephone: +47 22 591300

Poland
Gdansk

National Poisons Control Centre
Emergency telephone: +48 58 301 65 16 or +48 58 349 2831

Krakow
Department of Clinical Toxicology
Jagellonian University Medical College
Emergency telephone: +48 12 411 99 99

Lodz
National Poisons Information Centre
Emergency telephone: +48 42 63 14 724

Lublin
Acute Poisonings Unit
Emergency telephone: +48 81 740 2675 or +48 81 740 2676

Poznan
Oddzial Chorob Zawodowych i Toksykologii (Department of Occupational Diseases & Toxicology)
Emergency telephone: +48 61 84 769 46

Rzeszow
Intensive Care Unit and Centre for Acute Poisonings
Regional Hospital No 2
Emergency telephone: +48 17 86 64 000 or +48 17 86 64 404

Sosnowiec
Regionalny Osrodek Ostrych Zatruc (Regional Poisons Centre)
Emergency telephone: +48 32 266 11 45

Warsaw Warszawa
Warsaw Poison Control and Information Centre
Emergency telephone: +48 22 619 66 54; +48 22 619 08 97

Wroclaw
Lower Silesian Poisons and Toxicilogical Information Centre
Emergency telephone: +48 71 343 30 08 or +48 71 789 02 14

Portugal

Lisbon Lisboa
Centro de Informacao Antivenenos - Dra Arlinda Borges
Emergency telephone: 808 250 143 (for use only in Portugal), +351 21 330 3284

Romania
Bucharest
TOXAPEL
Emergency telephone: +40 2121 06282 or +40 2121 06183
Note: Child cases only

Department of Clinical Toxicology
Emergency telephone: +40 21 230 8000

Russian Federation
Moscow
Toxicology Information and Advisory Centre (RTIAC)
Emergency telephone: +7 095 928 16 87 (Russian only)

Slovakia
Bratislava
Toxicological Information Centre
Emergency telephone: +421 2 54 77 4 166

Slovenia
Ljubljana
Poison Centre
Emergency telephone: + 386 41 650 500

Spain
Barcelona
Unitat de Toxicologia Clinica Emergency telephone: +34 93 227 98 33 or +34 93 227 54 00 bleep 190

Instituto de Toxicologia
Emergency telephone: +34 93 317 44 00

Madrid
Servicio de Informacion Toxicologica
Emergency telephone: +34 91 562 04 20

Seville Sevilla

Servicio de Informacion Toxicologica
Emergency telephone: +34 95 437 12 33

Sweden
Stockholm
Giftinformationscentralen (Swedish Poisons Information Centre)
Emergency telephone: +46 8 33 12 31 (International) 112 (National)

Switzerland
Zurich
Centre Suisse d'Information Toxicologique
Emergency telephone: +41 1 251 51 51

Turkey
Ankara
Toxicology Department and Poisons Centre
Emergency telephone: 0 800 314 7900 (Turkey) only, or +90 0312 433 70 01

United Kingdom
UK National Poisons Emergency number: 0870 600 6266
Outside UK: +44 870 600 6266
Only available to health professionals

Belfast
National Poisons Information Service (Belfast Centre)
Emergency telephone: 0870 600 6266 (UK only)

Birmingham
National Poisons Information Service (Birmingham Centre)
Emergency telephone: 0870 600 6266 (UK only)

Cardiff
National Poisons Information Service (Cardiff Centre)
Emergency telephone: 0870 600 6266 (UK only)

Edinburgh
NPIS Edinburgh (Scottish Poisons Information Bureau)
Emergency telephone: 0870 600 6266 (UK only)

London
Guy's & St Thomas' Poisons Unit

Emergency telephone: 0870 243 2241

Newcastle
National Poisons Information Service (Newcastle Centre)
Emergency telephone: 0870 600 6266 (UK only)

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